Operations & Service Manual

FSH-5 & FSH-6

Models: FSH-5

GILES
FOODSERVICE EQUIPMENT

Giles Enterprises, Inc.
An ISO 9001 Registered Company
2750 Gunter Park Drive West • Montgomery, AL 36109 USA
Phone: (334) 272-1457 • Fax: (334) 272-3561 • Internet: www.gilesent.com
Service Hotline (Toll Free): 1-800-554-4537 (USA & Canada Only)
Form No. 64898 (Release date: 7/99)(Revision Date: 06/10/04)(Revision: B)

LIMITED WARRANTY

- Subject to the terms and conditions of this Limited Warranty as herein stated, all Giles Enterprises, Inc., Foodservice Equipment and parts purchased new from an authorized Giles Enterprises, Inc., representative are warranted as to defects in material or workmanship for a period of 12 months from the date of installation, provided, however, that with regard to labor costs in connection with this warranty, see below. All installations must be made by a qualified installing agency in accordance with all applicable codes and/or regulations in the jurisdiction in which installed. Limited warranty coverage is extended to the original owner only and is void if the unit is resold.

- During the Limited Warranty period, Giles Enterprises, Inc. will replace or recondition, at its factory, any part or parts of this unit which Giles Enterprises, Inc. inspectors judge defective, provided the unit has been subjected to normal usage, properly installed, operated and serviced. This Limited Warranty does not cover cosmetic damage, and damage due to acts of God, accident, misuse, alteration, negligence, abuse of the Giles Foodservice Equipment or the use of unorthodox repair methods. All parts replaced under this Limited Warranty carry only the unexpired term of this Limited Warranty. Limited Warranty service may be furnished only by an authorized Giles Enterprises, Inc., representative.

- If Limited Warranty service is requested, Giles Enterprises, Inc., will send factory-authorized service representatives to repair, recondition, replace or inspect units of its manufacture with such labor being rendered without cost to owner for ninety (90) days from the date of installation. Otherwise, service, including labor and transportation charges or other expenses, in connection with the removal or installation of any part or parts supplied under this Limited Warranty, are specified on the original sales contract between the purchaser and the authorized Giles Enterprises, Inc., representative.

- Giles Enterprises, Inc. reserves the right to change or improve its equipment and parts in any way without obligation to alter such equipment or parts previously manufactured.

- Giles Enterprises, Inc. makes no further warranties, express or implied including implied warranties of merchantability or fitness for a particular purpose, and has no other obligation or liability not specifically stated herein.

- Repair or replacement as provided under this limited warranty is the exclusive remedy. Giles Enterprises, Inc., shall not be liable for any incidental or consequential damages for breach of any express or implied warranty on this product, except to the extent prohibited by applicable law. Any implied warranty of merchantability or fitness for a particular purpose on this product is limited in duration to the duration of this limited warranty.

- Used Giles Enterprises, Inc., Foodservice Equipment or parts or Giles Enterprises, Inc., Foodservice Equipment or parts not purchased from an authorized Giles Enterprises, Inc., representative, carry no warranties, express or implied.

Table Of Contents

Model: FSH-5 & FSH-6

Safety . . . . . **v**
Safety Overview v
Specific Safety Precautions vi

1. Introduction **1**
1-1. Construction 1
1-2. Standard Features 1
1-3. Optional Features 1
1-4. Specifications 2
1-4.1. Overall Dimensions for FSH-5 2
1-4.2. Overall Dimensions for FSH-6 3
1-4.3. Regulatory Listings 4
1-4.4. Hood Weights 4

2. Installation **5**
2-01. Unpacking 5
2-02. Location 6
2-03. Hood Mounting Detail 6
2-03. Hood Skirt Installation 7
2-04. Cooking Appliance limitations and clearances 8
2-04.1. Fryer limitations 8
2-04.2. Fryer clearances 8
2-04.3. Oven limitations 9
2-04.4. Oven clearances 9
2-04.5. Griddle limitations 10
2-04.6. Griddle clearances 10
2-04.7. Range limitations 11
2-04.8. Range clearances 11
2-05. Hood Electrical Requirements 12
2-05.1. Electrical Connections 12
2-05.2 Routing Power Wires 13
2-05.3 Hood and Appliance Interlock Diagram 13
2-06. Fire Suppression System Installation 14
2-06.1. Fire Suppression System Routing 14
2-06.2. Fire Suppression Fusible Links 15
2-06.3. Appliance Nozzles 15
2-06.4. Fire Extinguisher Nozzle Locations 16
2-06.5. General Maintenance 16

3. Overview **17**
3-01. Control Panel 18
3-02. Filter Chamber and Exhaust 20
3-03. Accessories (Included) 22

4. Operation & Filter Maintenance 25
4-01. Hood Operation 25
4-02. Filters and Filter Maintenance 25
4-02.01. Ventless Hood Filter Table 25
4-02.02. Baffle Filter Removal. 26
4-02.03. Baffle Filter Installation 27
4-02.04. Baffle Filter Missing 27
4-02.05. Baffle Filter Cleaning. 28
4-02.06. Pre-Filter Removal. 28
4-02.07. Pre-Filter Installation 29
4-02.08. Pre-Filter Filter Missing. 29
4-02.09. Pre-Filter Replacement 30
4-02.10. EAC Filter Removal 30
4-02.11. EAC Filter Installation 31
4-02.12. EAC Filter Status. 32
4-02.13. EAC Filter Cleaning 32
4-02.14. Charcoal Filter Removal 33
4-02.15. Charcoal Filter Installation 34
4-02.16. Charcoal Filter Missing 34
4-02.17. Charcoal Filter Replacement. 35
4-03. Filter Alarm Chart 35

5. Hood Cleaning and Maintenance 37
5-1. Monthly Interlock Check 37
5-2. Quarterly Hood Cleaning 37
5-3. Semi-Annual Fire Suppression System 38
5-4. Annual Fire Suppression System 38
5-5. 12 Year Fire Suppression System 38

6. Troubleshooting 41
6-1. Troubleshooting Procedures 41

7. Parts List 43
7–1. Parts Ordering and Service Information 43
7-2. Component Drawer -FSH-5 and FSH-6 44
7-3. Front View -Doors and Panel removed 46
7-4. Baffle Filters and Switches 48
7-5. Doors and Front Panel 50

8. Wiring Diagram 53
8-01. Wiring Diagram FSH-5 and FSH-6 208-240/60/1 54
8-02. Wiring Diagram FSH-5 and FSH-6 208-240/60/1 (ILS) 56

Safety

Safety Overview

The instructions contained in this manual have been prepared to aid you in learning the proper procedures for installing and servicing your unit.

Throughout this manual, safety precautions are identified through the use of the safety alert symbol and three signal words: **DANGER, WARNING**, and **CAUTION**. All safety alert information precedes the step(s) to which they apply. Suggested, recommended, or other noteworthy information is identified through the use of **NOTES**. Additionally, certain words are used to indicate a specific meaning or to add emphasis.

The following words are used as indicated throughout the manual:
Shall: understood to be mandatory.
Should: understood to be advisory.
May: understood to be permissive.
Will: indicates a future event/condition to occur.

⚠ or ⚠
(Safety Alert Symbol)
Used in conjunction with signal words (**DANGER, WARNING**, or **CAUTION**) to alert you of potential personal injury hazards, immediately preceding precautionary measures that pertain to subsequent step(s). Obey all safety messages that follow this symbol to avoid possible injury or death. Failure to adhere to safety precautions identified by the safety alert symbol may also void the warranty.

⚠ DANGER

- Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. Use of this is limited to the most extreme situations.

⚠ WARNING

- Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

- Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. Also used to alert against unsafe practices.

CAUTION

- When used without the safety alert symbol, **CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in equipment/property damage, and void the warranty.

NOTE:

- Identifies suggested, recommended, or other noteworthy information.

Specific Safety Precautions

For your safety, please observe the following precautions when operating or servicing your Ventless Hood, Model FSH-5 or FSH-6. Read the following important safety information to avoid personal injury and/or damage to the equipment.

⚠ DANGER

- Always disconnect the source of the main power before removing the service entrance box cover.
- Failure to ensure the Power switch is in the "OFF" position during servicing and when replacing filters could result in equipment damage, electrical shock and/or personal injury.
- Failure to comply with these **DANGER** notices will result in death or serious injury, equipment/property damage, and void the warranty.

⚠ WARNING

- **DO NOT** use or store gasoline or other flammable liquids or vapors in the vicinity of this or any other appliance!
- Consult a qualified electrician to ensure all electrical specifications have been met and the unit is properly grounded.
- Before installing or servicing this equipment, read the contents of this manual thoroughly.
- Improper installation, adjustment, alteration, service or maintenance could result in death or serious injury, equipment/property damage, and void the warranty.
- Failure to comply with these **WARNING** notices could result in death or serious injury and equipment/property damage.

⚠ CAUTION

- Maintain a minimum clearance of 14" (355.6mm), 18" (457.2mm) is recommended, between the hood outlet and the ceiling or any obstruction above the hood.
- Exercise care when lifting or moving the unit. See Section 1-4.4 for Hood weights.
- Exercise care when removing the wooden crate from around the unit.

⚠ CAUTION

- **DO NOT** operate the unit unless you fully understand the components and their intended function.
- Be careful not to bend the fins or break the ionized wires on the EAC (Electrostatic Air Cleaner), as this will prevent the EAC from working properly and shut off the power to the appliance being used with the hood.
- Failure to comply with these **CAUTION** notices may result in minor or moderate injury, equipment/property damage, and void the warranty.

CAUTION

- The electronic components of the Control Panel are impact-sensitive. Exercise care around the Control Panel to maintain proper operation.
- Do not try to dry the EAC either by running the hood to air dry or by running an appliance below to heat dry. This could potentially damage the EAC causing improper operation and voiding the warranty.
- During cleaning of Hood.
  - •• **DO NOT** steam clean.
  - •• **DO NOT** use products containing chlorine.
  - •• **DO NOT** use abrasive products, steel wool or scouring pads.
- Failure to comply with these **CAUTION** notices may result in equipment/property damage and void the warranty.

NOTE:

- If the crate in which the unit arrives is damaged, immediately inspect the Ventless Hood and notify the carrier of any damage to the unit.
- To aid the electrician, an electrical wiring diagram is contained in this manual. Refer to the wiring diagram during installation or servicing.
- Comply with all appropriate state and/or local heath regulations regarding the cleaning and sanitation of equipment.
- For difficult areas with excessive particulate build up, a mild degradable nontoxic degreaser (such as Clear Magic or Simple Green) may be used.
- Always ensure the unit is electrically grounded and installed in accordance with local codes, or in the absence of local codes, in accordance with the National Electrical Code ANSI/NFPA No. 70-1984.

NOTE:

- The decibel level of the hood when operating is approximately 73 dB's.

1. Introduction

Congratulations on the purchase of your new Giles Ventless Hood System (FSH-5 or FSH-6) manufactured by Giles Enterprises, Inc., Montgomery, Alabama (USA), hereafter referred to as "Giles". Two different models (FSH-5 and FSH-6) are available, both ceiling mounted. Proper care and maintenance of this unit will ensure years of trouble-free service.

To help protect your investment in this equipment, we recommend taking a few moments to familiarize yourself with the installation, cleaning and maintenance procedures contained in this manual. Read these instructions before installation and use. Adherence to these recommended procedures minimizes the potential for costly "down-time" and equipment repairs. Please retain this manual for future reference.

1-1. Construction

The Ventless Hood System exterior is constructed of stainless steel.

1-2. Standard Features

Control Panel

- Control panel LED indicators monitor the status of the Left and Right EAC filters.
- Missing Filter Light indicates if the Baffle, Pre-Filter, and/or Charcoal filter missing.

Filters

- Baffle Filters -used for large grease particles.
- Pre-Filters -used for smaller grease particles.
- Electronic Air Cleaners (EAC) -used to capture smoke & other air contaminates.
- Charcoal Filters -used for odor removal.

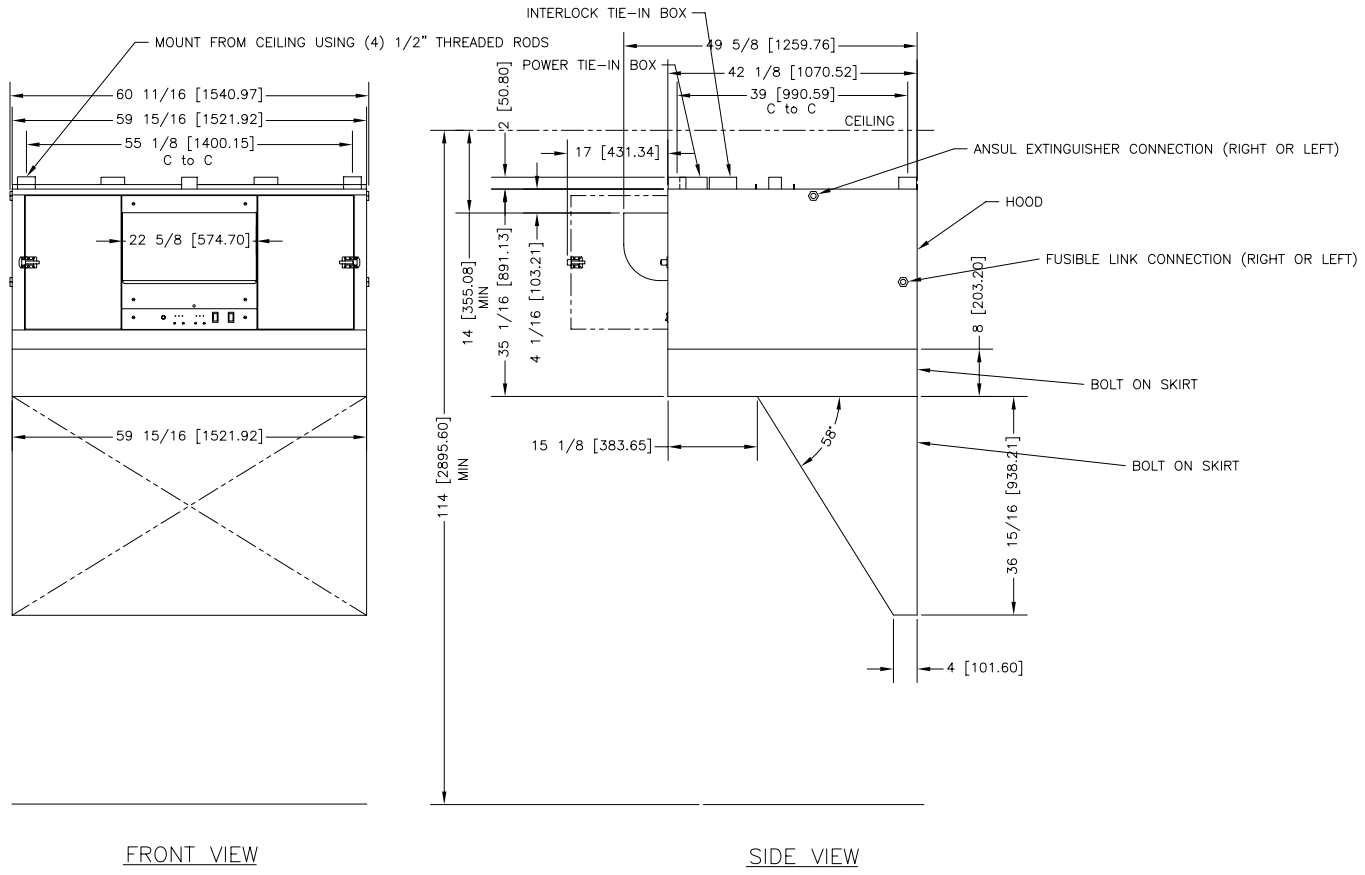
1-3. Optional Features

Inlocking Start System (ILS)

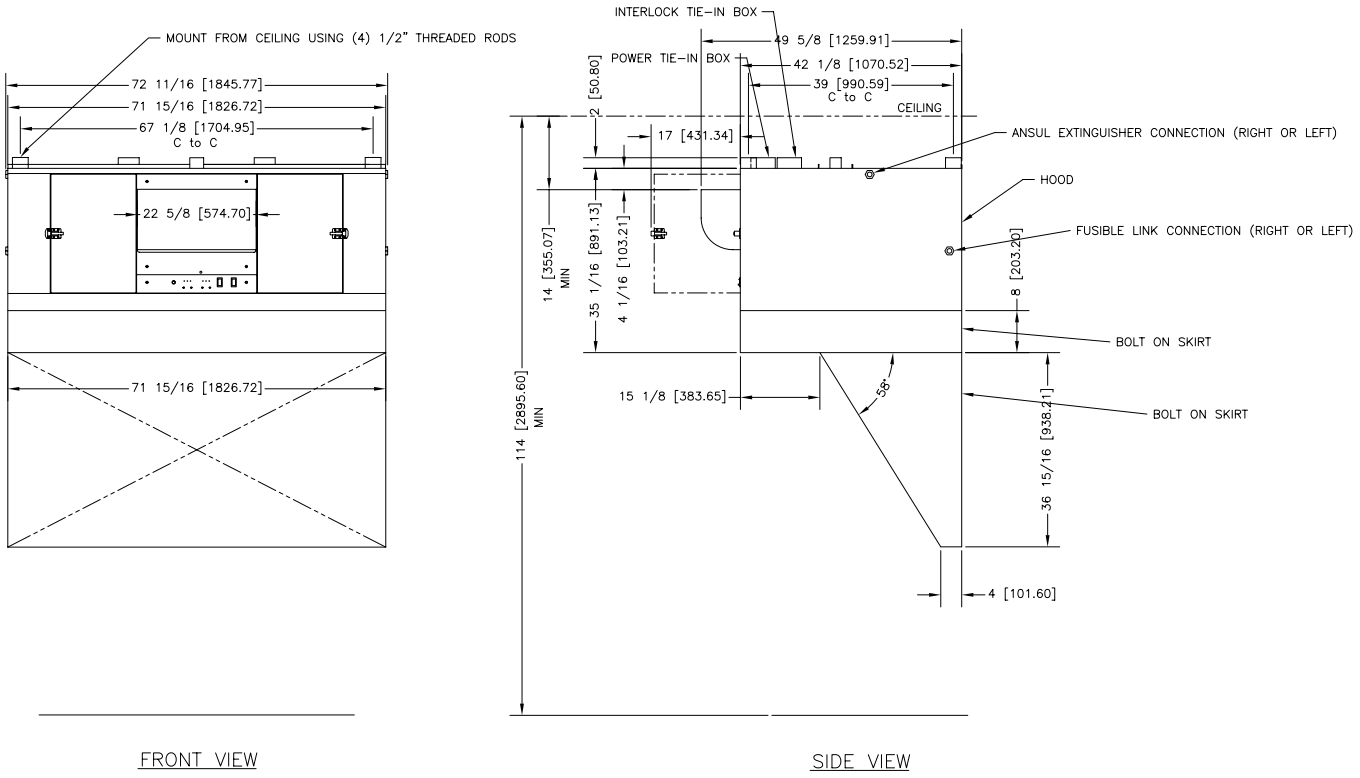
- Inlocking Start System (ILS) -This system will cause the Hood and the Appliance below the Hood to shut down when the hood filters need to be clean or are not properly installed. This system is required by some cities and/or states. Please check with your local code officials to see if this system is required.

1-4. Specifications

1-4.1. Overall Dimensions for FSH-5



1-4.2. Overall Dimensions for FSH-6



1-4.3. Regulatory Listings

UL (US and Canada)
ETL (FSH-5 Only)
NSF
CE

1-4.4. Hood Weights

Hood	Crated Weight	Uncrated Weight
FSH-5	664 lbs [302 kg]	464 lbs [211 kg]
FSH-6	733 lbs [333 kg]	553 lbs [251 kg]

2. Installation

This section provides a summary of procedures necessary to install your new FSH-5 or FSH-6. Before installing or servicing this equipment, please read the contents of this manual thoroughly. Following these procedures will help ensure a safe and proper installation.

2-01. Unpacking

Your Ventless Hood should arrive packaged in a wooden crate, covered with plastic shipping wrap, and secured to a wooden platform by means of high-tensile strength strapping. Perform the following steps to uncrate the unit:

1. Position the packaged unit in an area with sufficient room for unpacking.

NOTE:
- If the crate is damaged, immediately inspect the Ventless Hood and notify the carrier of any damage to the unit.

2. Cut and remove the plastic shipping wrap and any high-tensile strength straps from the exterior of the wooden crate.

3. Use a hammer and pry-bar to remove the wooden crate from around the unit

⚠ CAUTION
- Use a forklift to move and lift the hood; see Section 1-4.4 for hood weights.
- Exercise care when removing the wooden crate from around the unit.
- Failure to comply with these **CAUTION** notices may result in minor or moderate injury, equipment/property damage, and void the warranty.

2-02. Location

NOTE:

- The decibel level of the hood when operating is approximately 73 dB's.

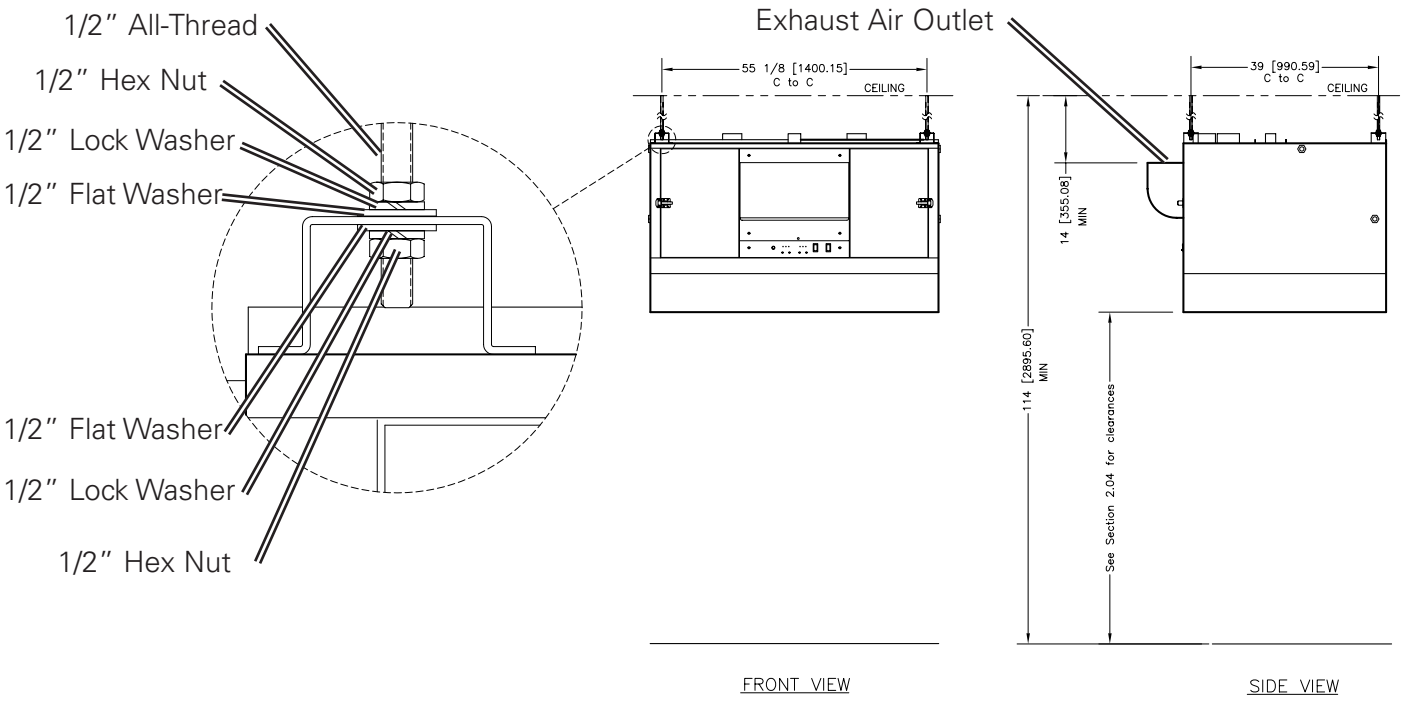
⚠ CAUTION

- **DO NOT MODIFY, ALTER OR ADD ATTACHMENTS TO THIS EQUIPMENT**

1. Do not obstruct the exhaust air outlet. Maintain a minimum clearance of 14 inches (355.6mm) between the air outlet and ceiling or any obstruction.

2. Ensure all mounting supports and braces are structurally sound and can support the weight of the hood. See Section 1-4.4 for hood weights

2-03. Hood Mounting Detail



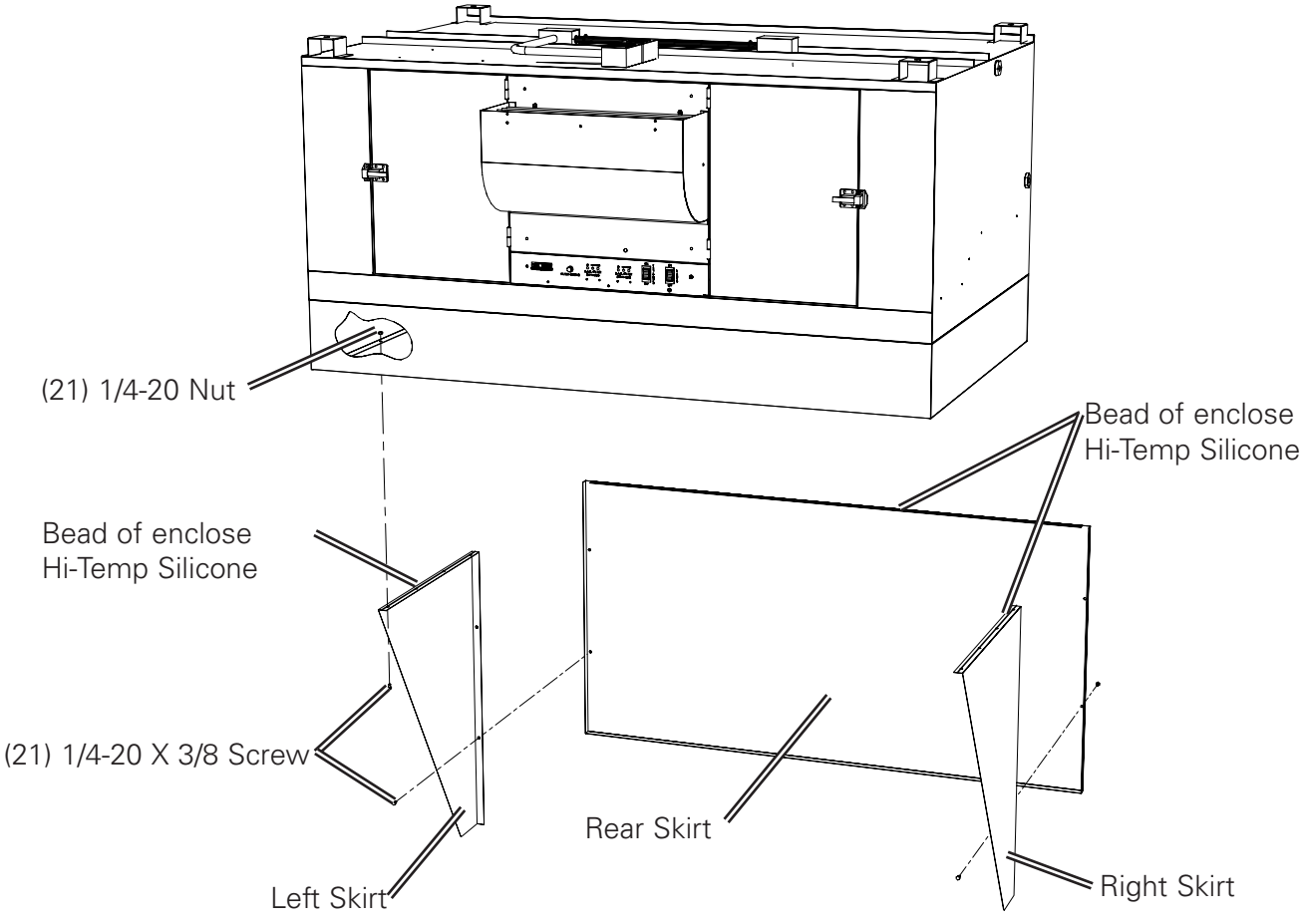
1. Ensure the hood is level, left to right and front to back.

2. Ensure all mounting fastening are secure.

2-03. Hood Skirt Installation

NOTE:
- Hood Skirts MUST be installed for correct air capture.

1. Apply a bead of the included Hi-Temp Silicone to the top flange of the left skirt.
2. Fasten left skirt to hood.
3. Apply a bead of the included Hi-Temp Silicone to the top flange of the right skirt.
4. Fasten right skirt to hood.
5. Apply a bead of the included Hi-Temp Silicone to the top flange of the rear skirt.
6. Fasten rear skirt to hood.
7. Fasten left and right skirts to the rear skirt.

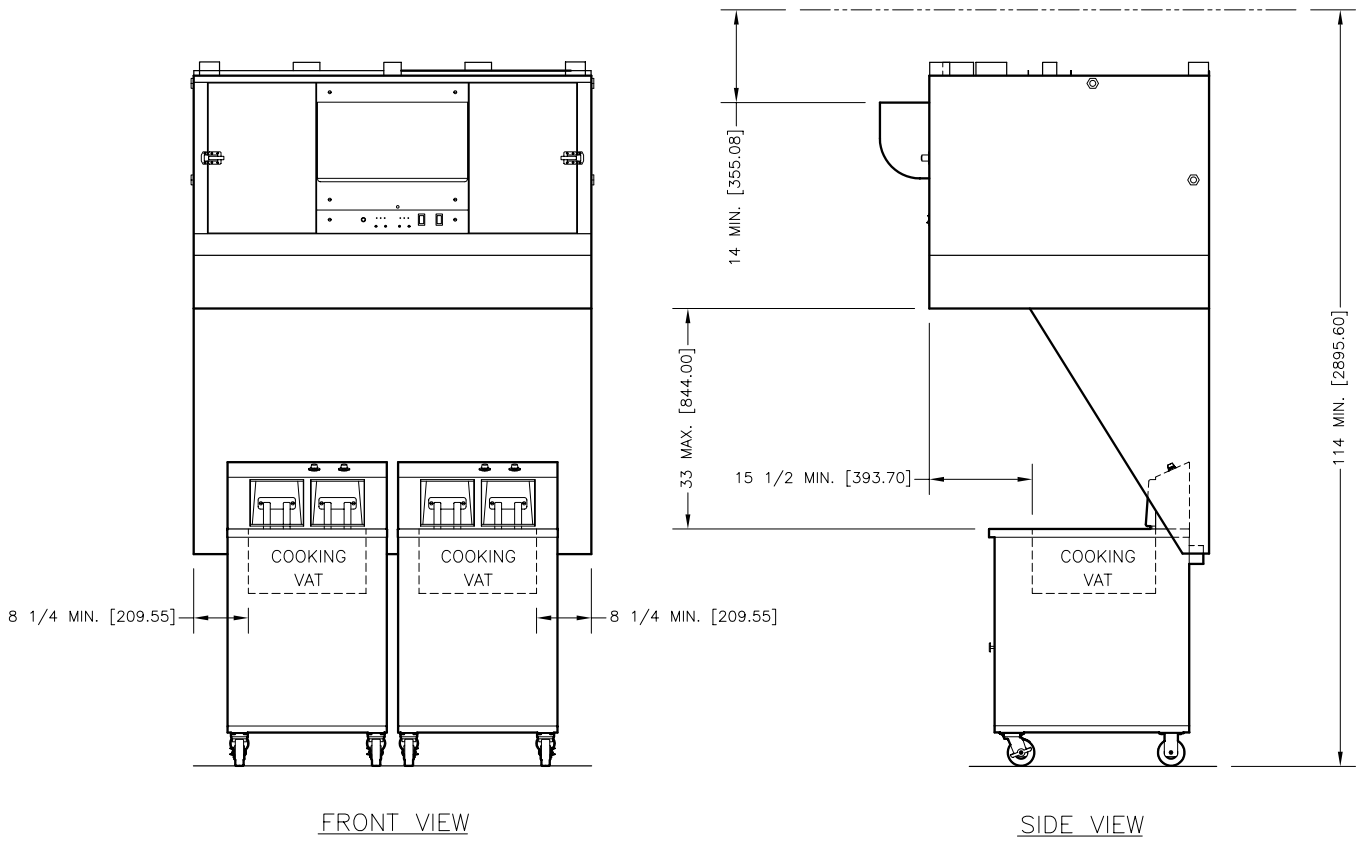


2-04. Cooking Appliance limitations and clearances

2-04.1. Fryer limitations

Hood	Max. Temp.	Max. kW Input	Max. Shortening Capacity	Max Cooking Surface (per Fryer)	Max Cooking Surface (Total all Fryers)
FSH-5	400	20	10.5	380 Sq. In.	760 Sq. In.
FSH-6	400	20	10.5	380 Sq. In.	760 Sq. In.

2-04.2. Fryer clearances

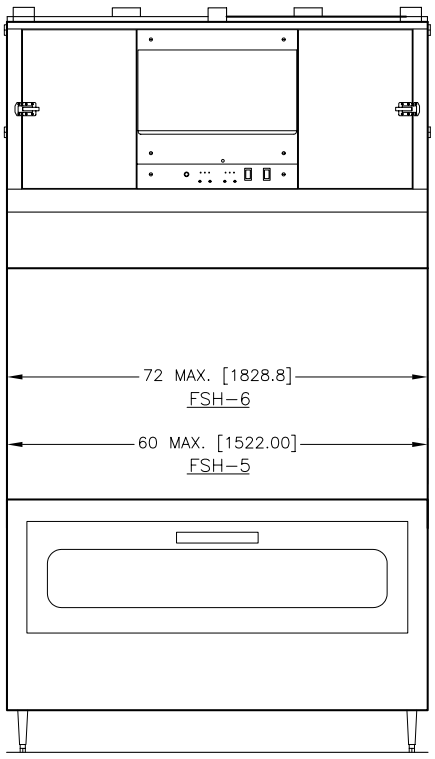


Inches [Millimeters]

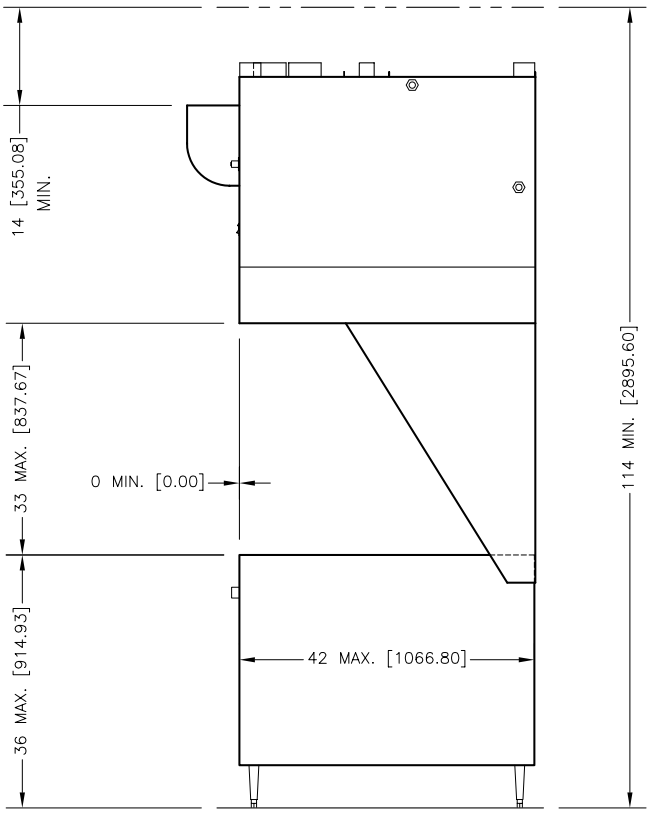
2-04.3. Oven limitations

Hood	Max. Temp.	Max. kW Input (Total all Ovens)
FSH-5	500	55
FSH-6	500	55

2-04.4. Oven clearances



FRONT VIEW



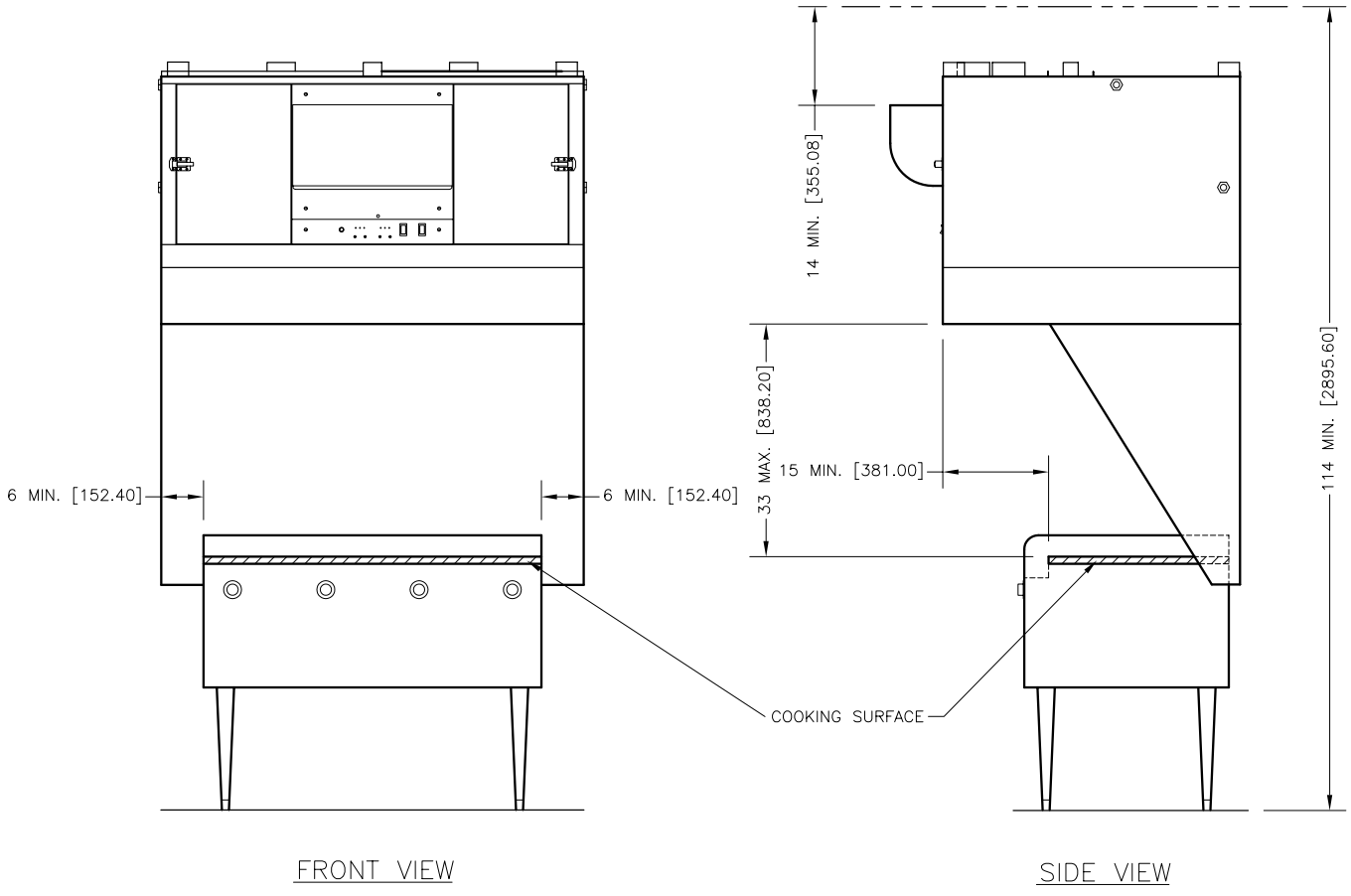
SIDE VIEW

Inches [Millimeters]

2-04.5. Griddle limitations

Hood	Max. Temp.	Max. kW Input	Max Cooking Surface
FSH-5	400	25	48 X 26
FSH-6	400	25	60 X 26

2-04.6. Griddle clearances

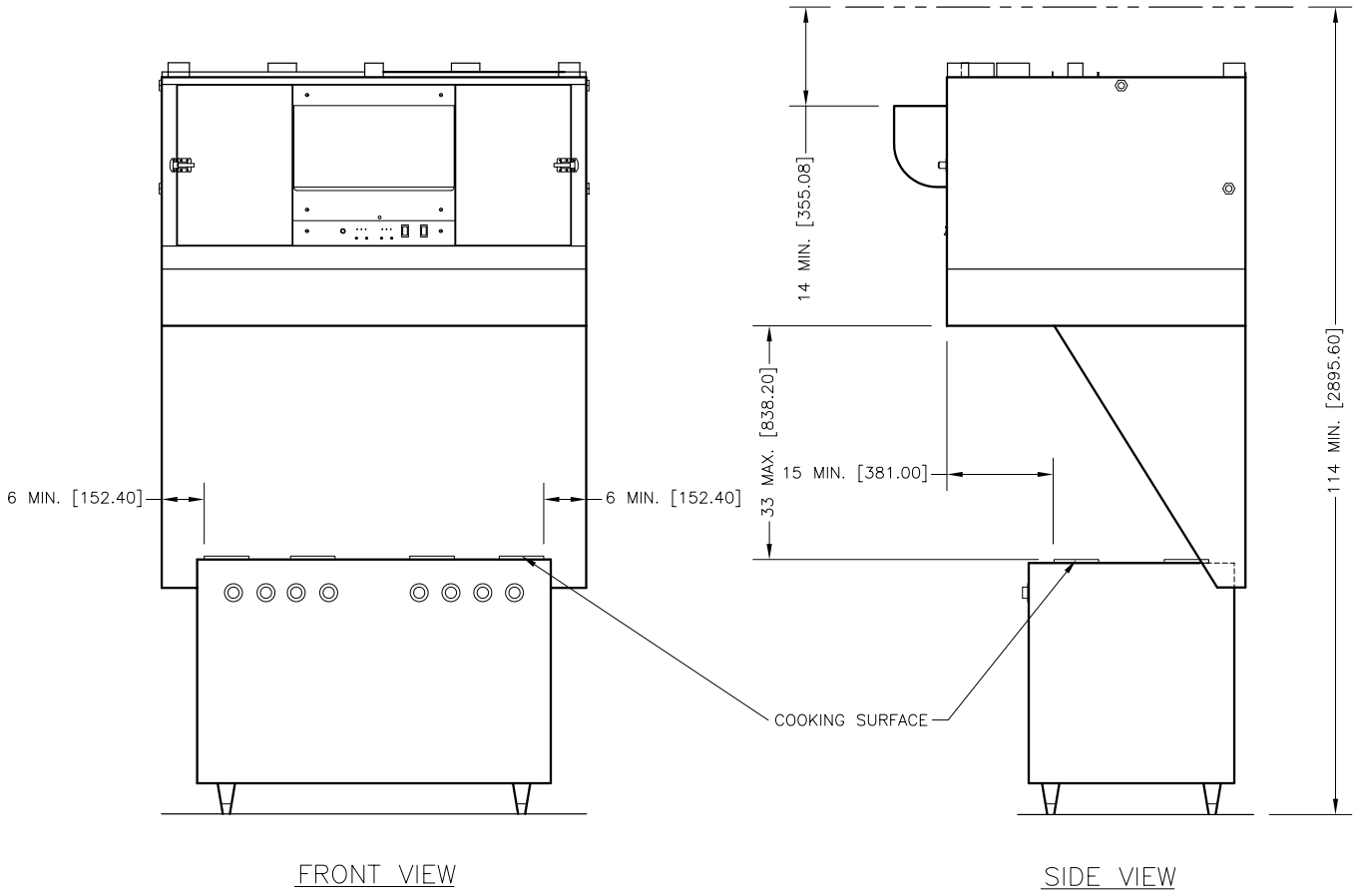


Inches [Millimeters]

2-04.7. Range limitations

Hood	Max. Temp.	Max. kW Input	Max Burners
FSH-5	400	25	8
FSH-6	400	25	8

2-04.8. Range clearances



Inches [Millimeters]

2-05. Hood Electrical Requirements

⚠ WARNING

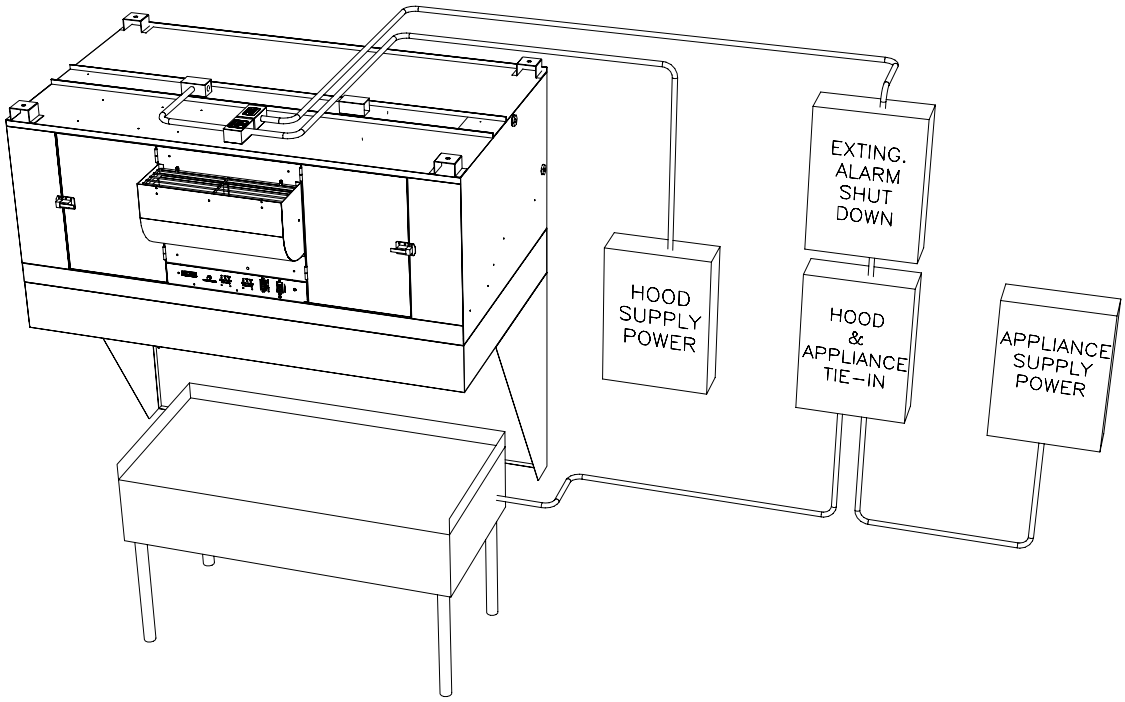
- Consult a qualified electrician to ensure all electrical specifications have been met and that the unit is properly grounded.
- Improper installation, adjustment, alteration, service or maintenance could result in death or serious injury, equipment/property damage, and void the warranty.

Hood Electrical Requirements					
Unit	**Voltage**	**Hz**	**Phase**	**Amps**	**Breaker**
FSH-5	208	60	1	15	20
FSH-5	240	60	1	15	20
FSH-6	208	60	1	15	20
FSH-6	240	60	1	15	20

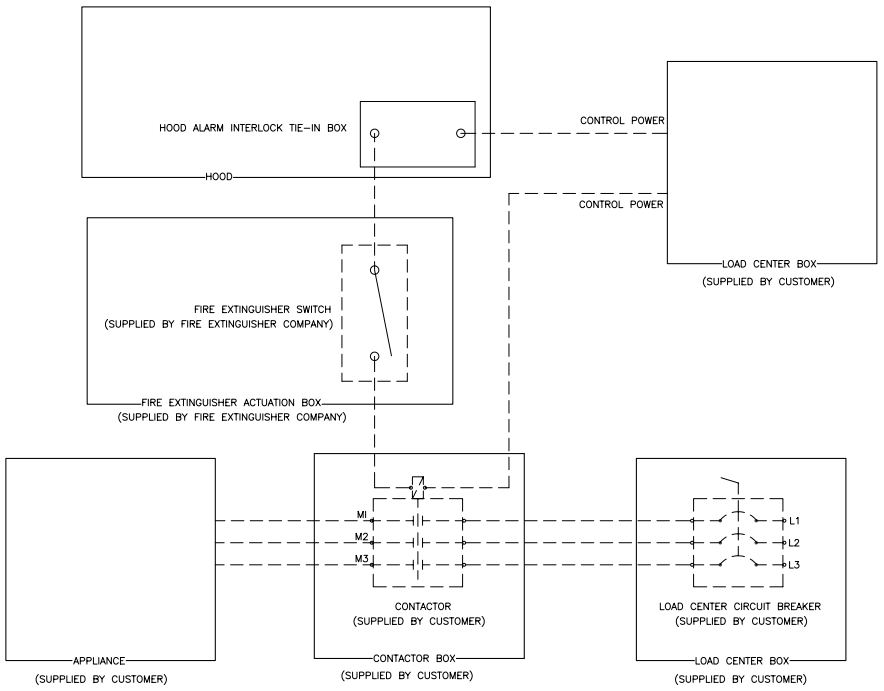
2-05.1. Electrical Connections

1. Install appropriate Circuit Breakers in Main Breaker Box. See Section 2-05.
2. Connect appropriate size Power Cable wire to the Main Breaker. Allow enough Cable so the unit can be moved for cleaning and servicing.
3. Reinstall Service Panel.
4. Turn Main Breaker on.
5. Press the Hood Power Switch to the ON position. (If ILS, with the Power Switch in the ON position press and hold Start Button)

2-05.2 Routing Power Wires



2-05.3 Hood and Appliance Interlock Diagram



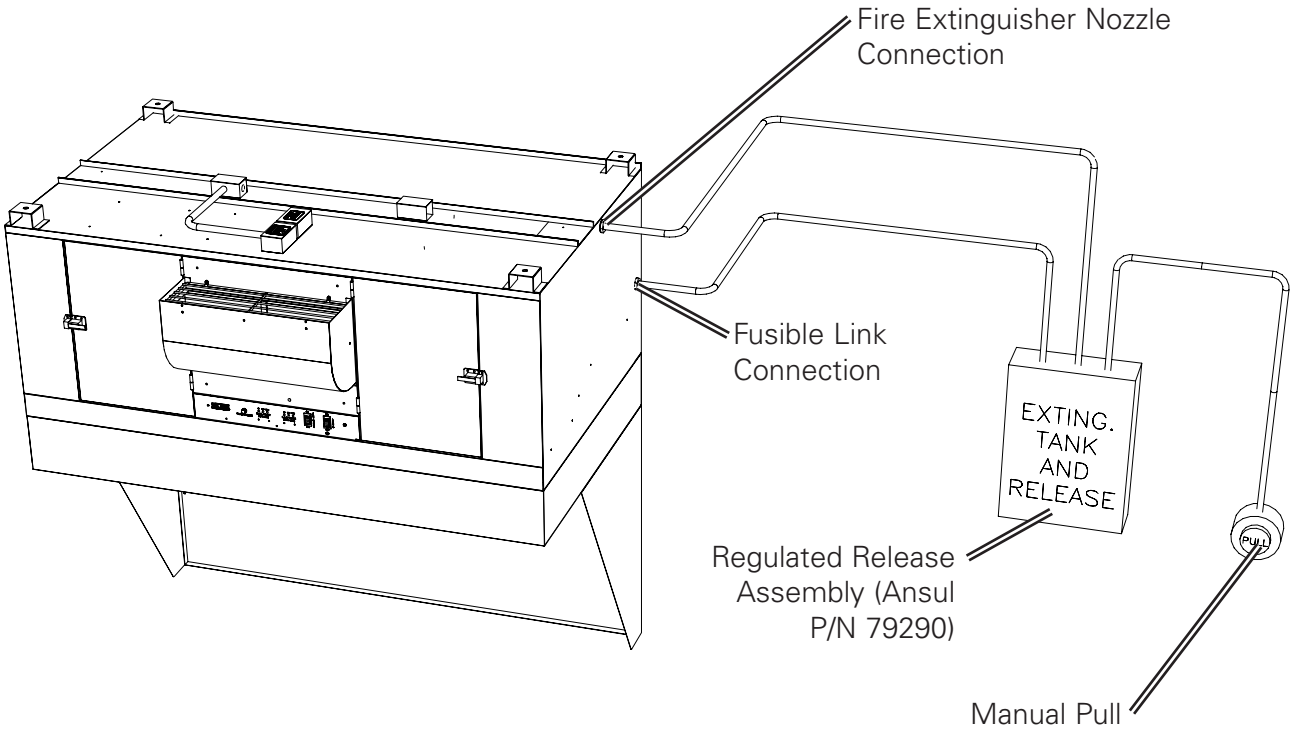
2-06. Fire Suppression System Installation

The Giles FSH-5 & 6 Ventless Hood System is required to be protected by a UL Listed fire suppression system. Installation is to be performed by an Authorized Fire Suppression Agent in accordance with the system listing.

The FSH-5 & 6 hood system is pre-piped at the factory and contains supply line, plenum nozzles and fusible link brackets. The hood has been designed to accommodate either left or right side hook-ups. The electrical switch requirements are identical to those listed in the Ansul R-102 Installation Manual with the hood system acting as the customer supplied switch.

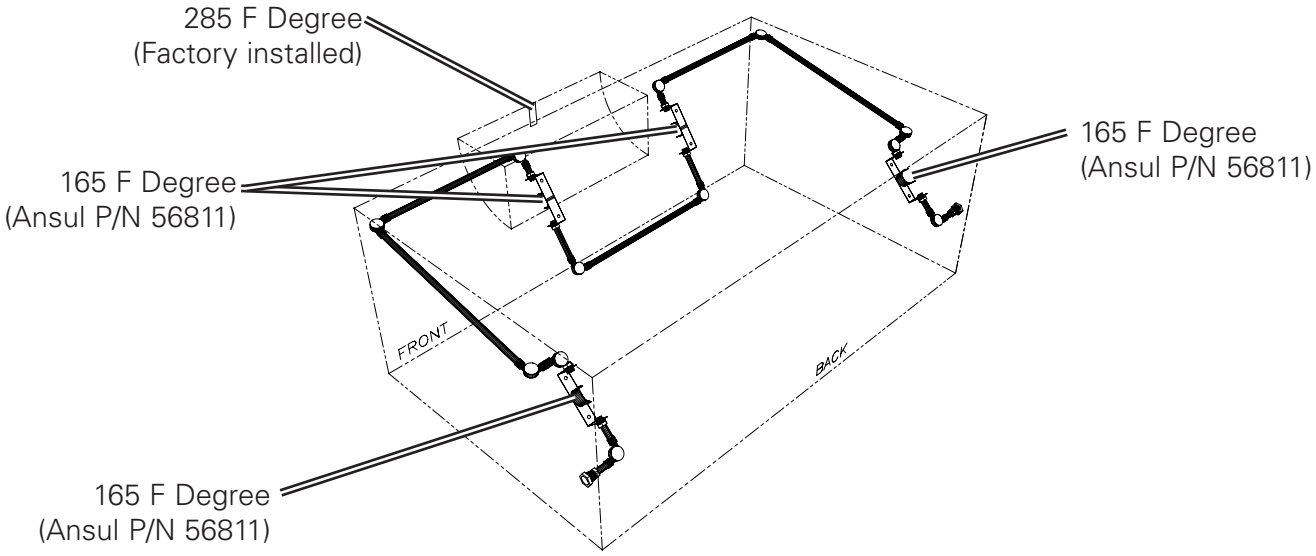
1. Use Ansul No. 56922-1W Appliance Nozzles, No. 56927 Plenum Nozzles and Ansul No. 56811 Fusible Link 165ºF (74ºC).
2. Appliance nozzles shall be positioned 11" [279.4mm] below the lowermost front edge of the hood.
3. The use of both appliance nozzles is required at all times.
4. A manual pull station for the Fire System is to be provided in a path of exit or egress. Ensure the pull station is clearly marked and easily accessible.
5. Regulated Release Assembly shall be of the mechanical type (Ansul P/N 79290).

2-06.1. Fire Suppression System Routing

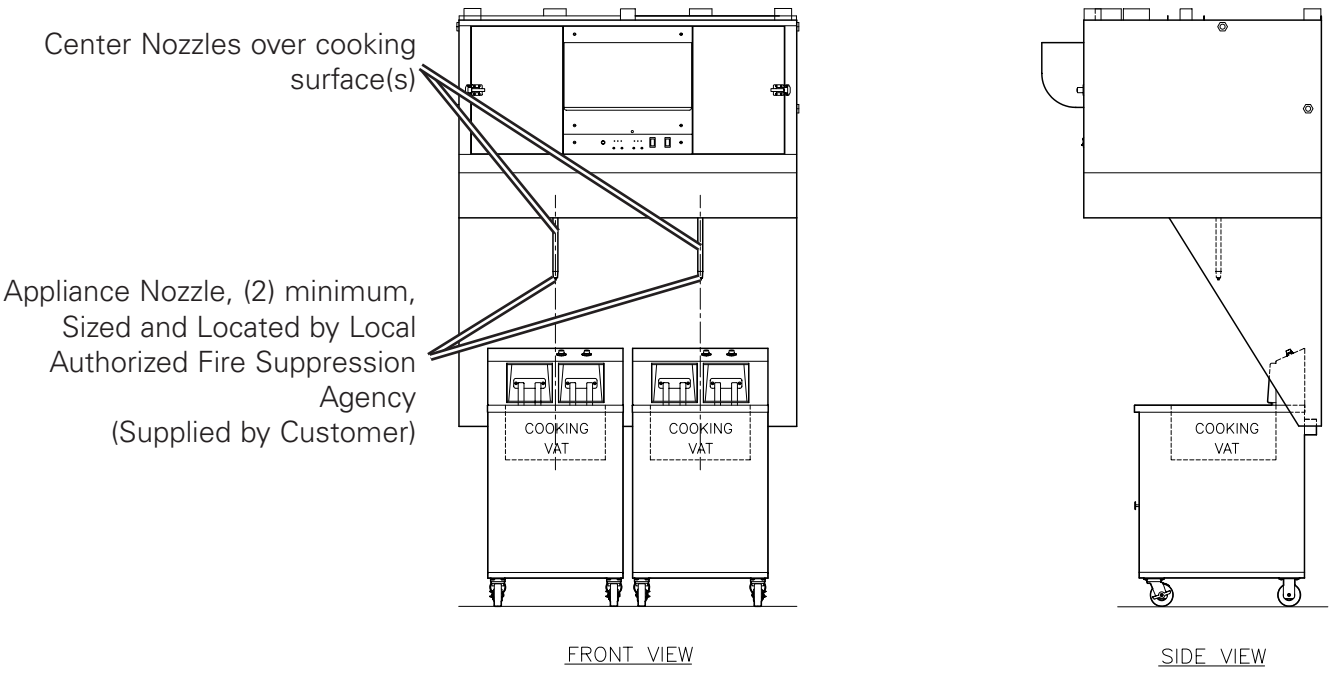


Note -System may be located and connected on the left or right of the hood.

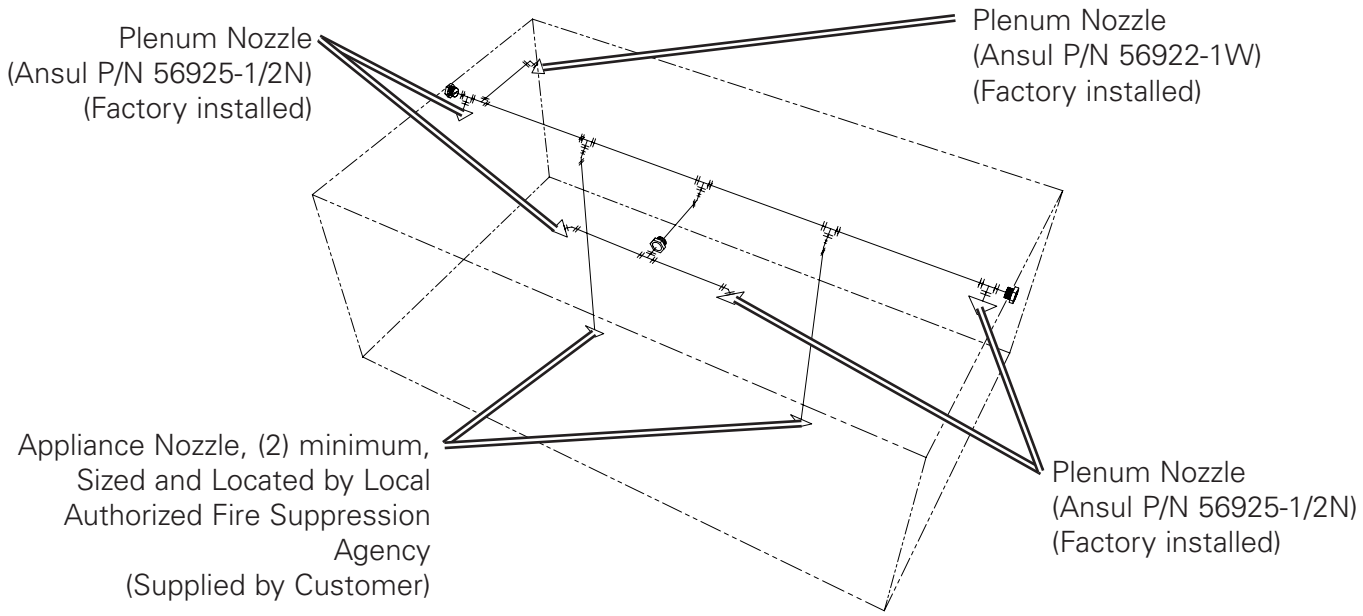
2-06.2. Fire Suppression Fusible Links



2-06.3. Appliance Nozzles


Center Nozzles over cooking surface(s)
Appliance Nozzle, (2) minimum, Sized and Located by Local Authorized Fire Suppression Agency (Supplied by Customer)
COOKING VAT
COOKING VAT
COOKING VAT
FRONT VIEW
SIDE VIEW

2-06.4. Fire Extinguisher Nozzle Locations



2-06.5. General Maintenance

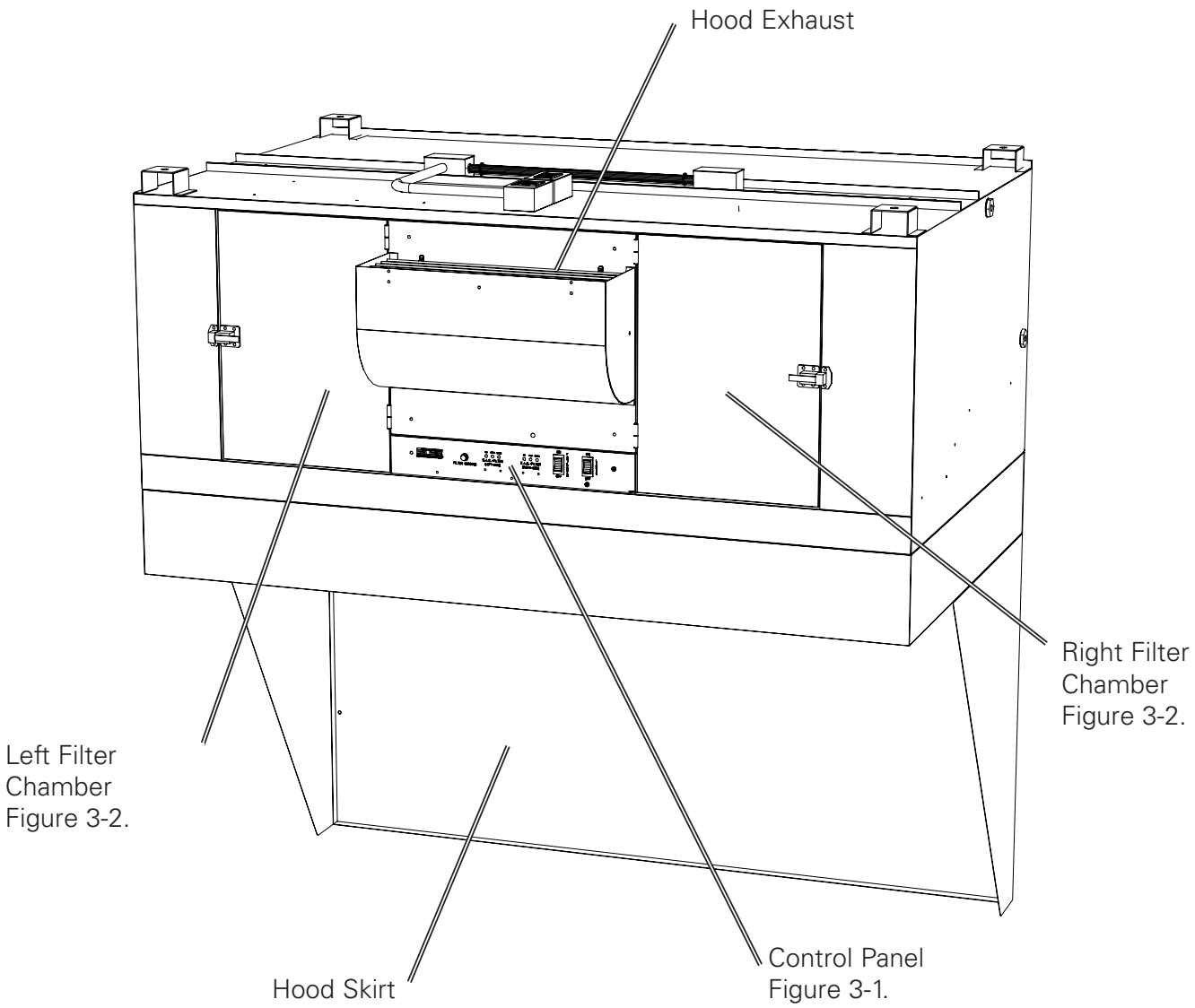
The fire extinguishing system should be maintained as outlined in the Standard for Wet Chemical Extinguishing Systems, NFPA 17A and the instructions of the installer of the system.
Please contact your local Authorized Fire Suppression Agent or Ansul Dealer for servicing and problems.
General Maintenance of the fire suppression system is very important. Inspect and maintain as follows:
Service of the fire suppression system is to be conducted by qualified fire equipment personnel. As a minimum, field inspection of the fire suppression system is to be accomplished semi-annually by qualified fire equipment service personnel. Such maintenance shall consist of the following:

1. Check to see the hazard has not changed.
2. Check for proper pressure.
3. Inspect the soundness of the sprinkler head and fusible link.
4. Ensure the system is properly located in the appliance.
5. Verify the date the unit was manufactured.
6. Check to be sure the service tag is attached indicating what service was performed and when performed.

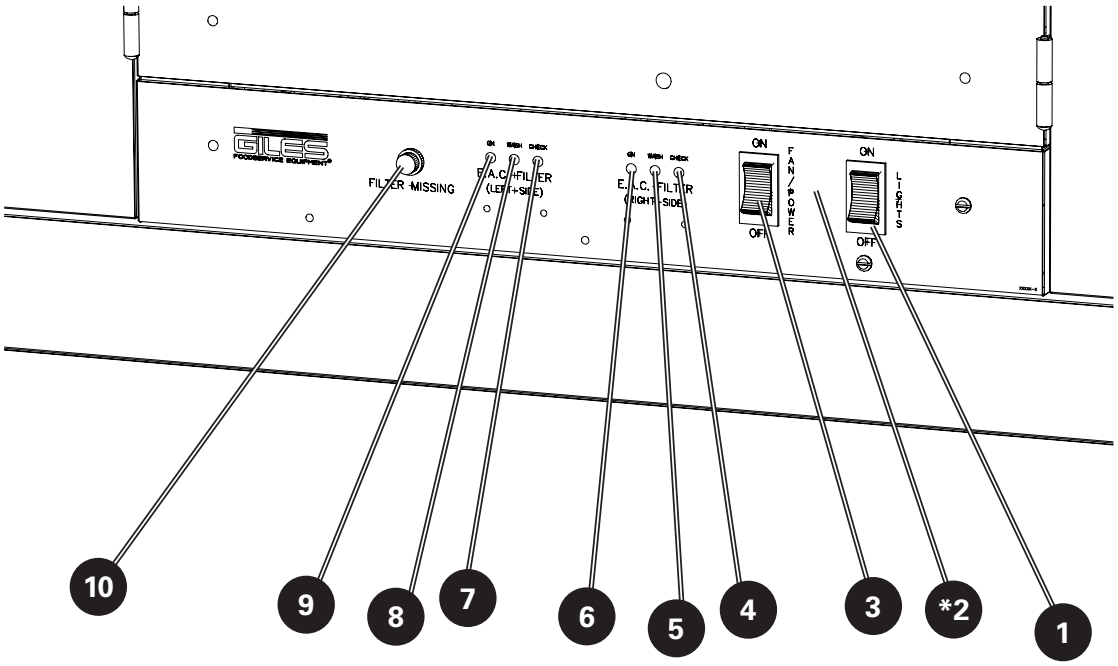
* Ansul is a registered trademark.

3. Overview

The following section provides a brief overview of the components, functions, and accessories of the FSH-5 and the FSH-6. Please review this section carefully before proceeding any further.



3-01. Control Panel



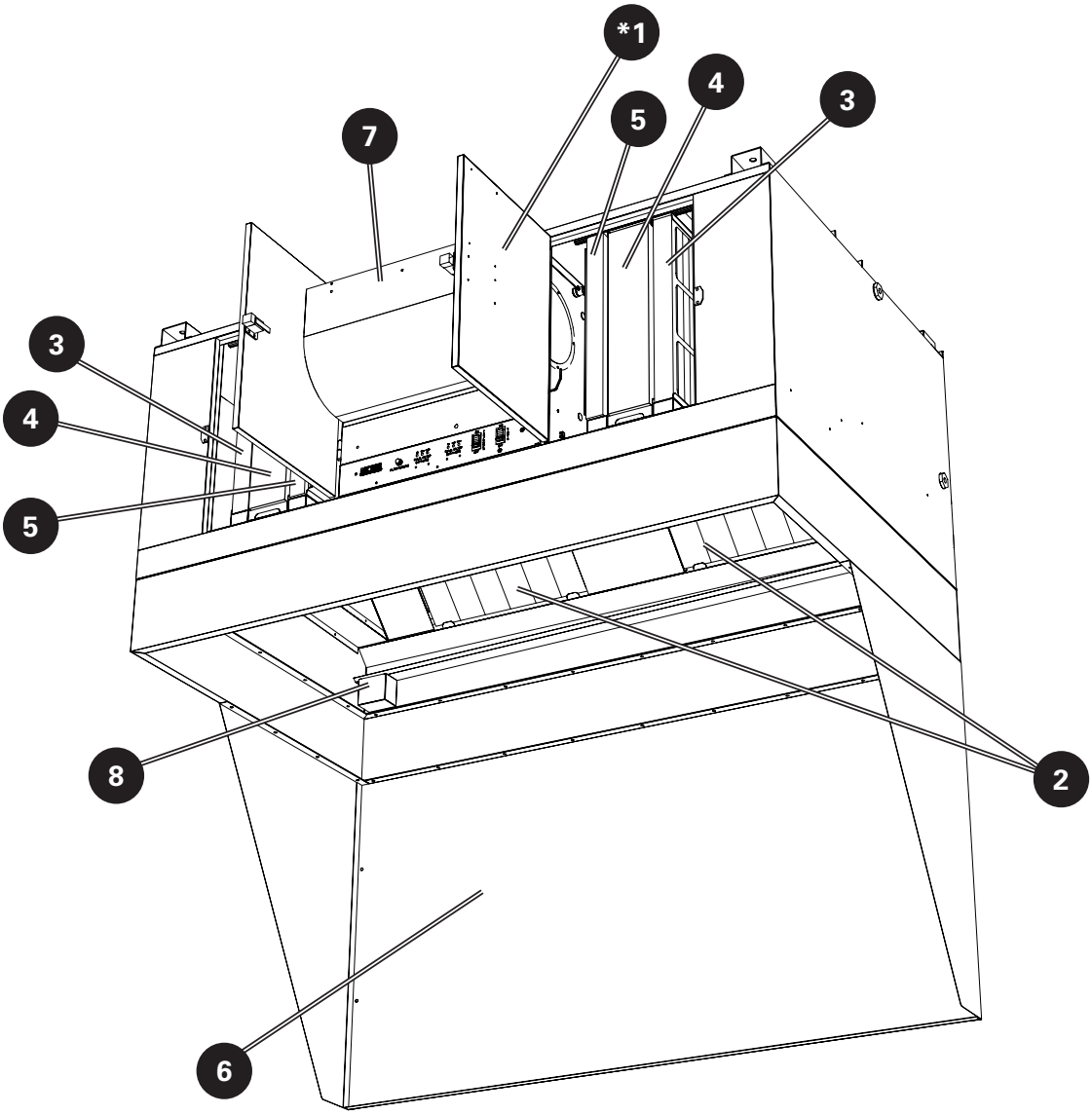
* -ILS Only

3-01. Control Panel

Item	Description	Function
1	Light Switch	Used to turn the hood light on and off.
*2	PUSH to START Button	After the Power Switch is in the "ON" position, push and hold down "PUSH to START" Button for 5 seconds. (Used only in units with ILS (Interlocking Start).
3	Power Switch	The Power Switch is a two-position Switch. Move the switch upward to the "ON" position for operation.
4	CHECK Indicator Light (Right EAC)	The "Check" Indicator Light will turn on when the EAC becomes shorted. (EAC needs cleaning or repair).
5	WASH Indicator Light (Right EAC)	The "Wash" Indicator Light will come on when the EAC becomes excessively dirty. Do not use this light as a signal for routine cleaning of the EAC. Failer to clean the EAC daily will significantly decrease the life of the charcoal filter. Clean the EAC daily for best performance.
6	ON Indicator Light (Right EAC)	The "ON" Indicator Light will turn on when the Electronic Air Cleaner (EAC) power supply is on.
7	CHECK Indicator Light (Left EAC)	Same as item 4 except left-side.
8	WASH Indicator Light (Left EAC)	Same as item 5 except left-side.
9	ON Indicator Light (Left EAC)	Same as item 6 except left-side.
10	Filter Missing Light	The "Filter Missing" Light will turn on when the Grease Baffle Filter, Pre-Filter, or Charcoal Filter are missing or are not properly positioned in the hood.

* -Interlocking Start (ILS) Only

3-02. Filter Chamber and Exhaust



3-02. Filter Chamber and Exhaust

Item	Description	Function
1	(2) Hood Filter Door	Used to access the Pre-Filter, EAC and Charcoal Filters. The door must be closed and latched for the unit to operate.
2	(2) Baffle Filter	The Baffle Filters are the first stage of the grease extraction and air-cleaning system found in these units. The filters are easily removed for daily cleaning. **DO NOT remove the Baffle Filter while the hood is operating to prevent contact with electrical parts and avoid electrical shock. The Baffle Filter should be cleaned daily.**
3	(2) Pre-Filter	The Pre-Filters allow additional grease-laden vapors to be removed from the air. **DO NOT remove the Pre-Filter while the hood is operating to prevent contact with electrical parts and avoid electrical shock. NEVER attempt to clean and use the Pre-Filters. Replace with new filters weekly.**
4	EAC Filter (Left and Right)	The EAC Filters are electrical devices which remove grease vapor and smoke generated by the appliance during cooking. **DO NOT remove the EAC Filter while the hood is operating to prevent contact with electrical parts and avoid electrical shock. The EAC should be cleaned daily.**
5	(2) Charcoal Filter	The Charcoal Filter helps to remove odors generated during cooking. This Filter should be replaced monthly. **DO NOT remove the Charcoal Filter while the hood is operating to prevent contact with electrical parts and avoid electrical shock. NEVER attempt to clean and reuse the Charcoal Filters. Replace with new filters every 30 days.**
6	Hood Skirt	The Hood Skirt helps contain grease laden vapors from the appliance.
7	Exhaust Outlet	The Exhaust Outlet located on front of the unit, exhausts the filtered air back into the room. **The minimum clearance of 14" must be allowed between the top of the Exhaust Outlet and the Ceiling for proper air flow.**
8	Grease Drip Cup	The Grease Drip Cup is used to contain excess grease captured from the Baffle Filters. This cup must be emptied and cleaned daily.

3-03. Accessories (Included)

Part	Description/Part Number	Function
	(2) Baffle Filter P/N 42300	Used for removing smoke and contaminants from the air.
	(2) Pre-Filter P/N 46762	Used to remove additional grease-laden vapors from the air.
	EAC Filter P/N 20521 (LEFT) P/N 20520 (RIGHT)	Used for removing smoke and contaminants from the air.

3-03. Accessories (Included)

Part	Description/Part Number	Function
	(2) Charcoal Filter P/N 32056	Used for removing odors from the air
	(2) EAC Soak Tank P/N 39327	Used for cleaning EAC filter.

Notes:

4. Operation & Filter Maintenance

This section describes the operation and the filter maintenance for the Ventless Hood.

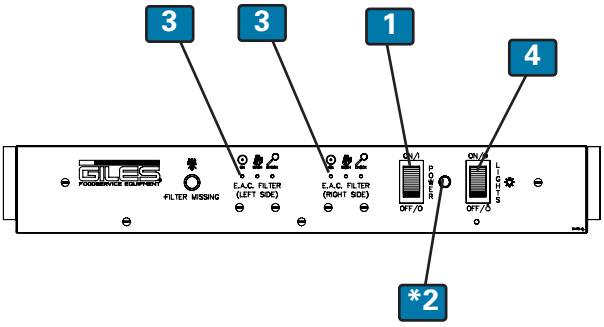
4-01. Hood Operation

This section describes how to start the Ventless Hood. Make sure all the Filters are in place before operating the unit.

1. Press the Power Switch to the ON 1 position, (if ILS, the press and hold the "Push and Hold to Start" 2 switch, for 5 seconds) the EAC On light 3 will illuminate.

   This will turn the Hood on and the Hood Fan will begin running. The appliance under the hood, which is interlocked to the hood, may now be turned on.

2. Press the Light Switch to the ON 4 position, the Hood Lights will illuminate.



* -ILS only

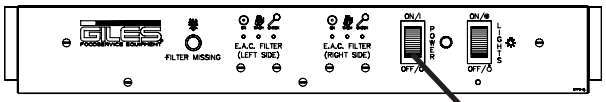
4-02. Filters and Filter Maintenance

This section describes each Filter in the Ventless Hood.

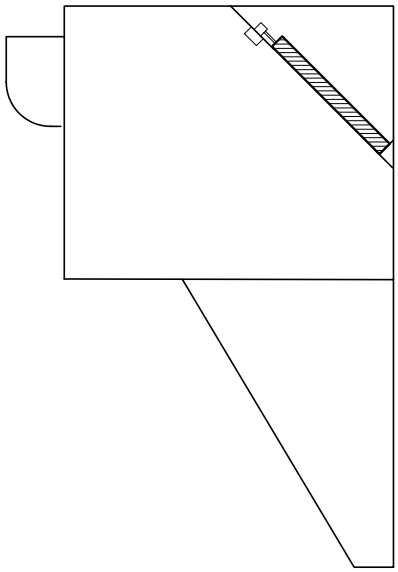
4-02.01. Ventless Hood Filter Table

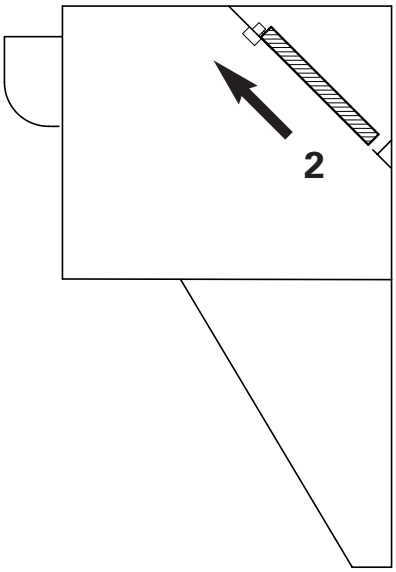
Filter	When to clean or replace	How to remove	How to clean	How to install
Baffle Filter	Clean daily	Section 4-02.02.	Section 4-02.05.	Section 4-02.03.
Pre-Filter	Replace weekly	Section 4-02.06.	**Never clean, only replace** Section 4-02.09.	Section 4-02.07.
EAC Filter	Clean daily	Section 4-02.10.	Section 4-02.13.	Section 4-02.11.
Charcoal Filter	Replace every 30 days	Section 4-02.14.	**Never clean, only replace** Section 4-02.17.	Section 4-02.15.

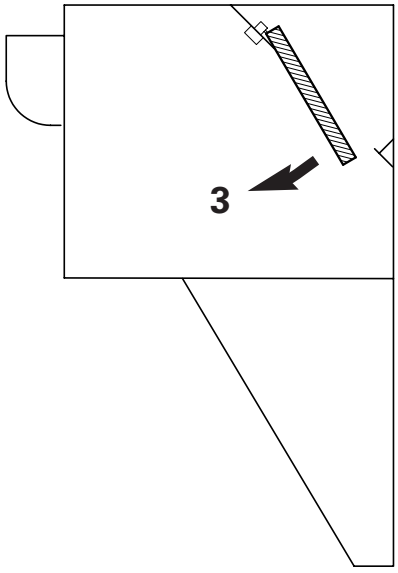
4-02.02. Baffle Filter Removal

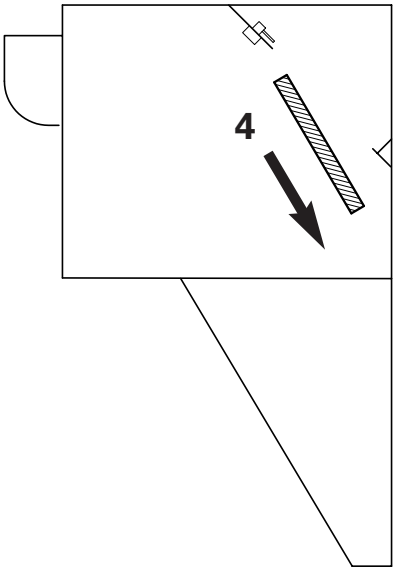


1 Place in OFF position

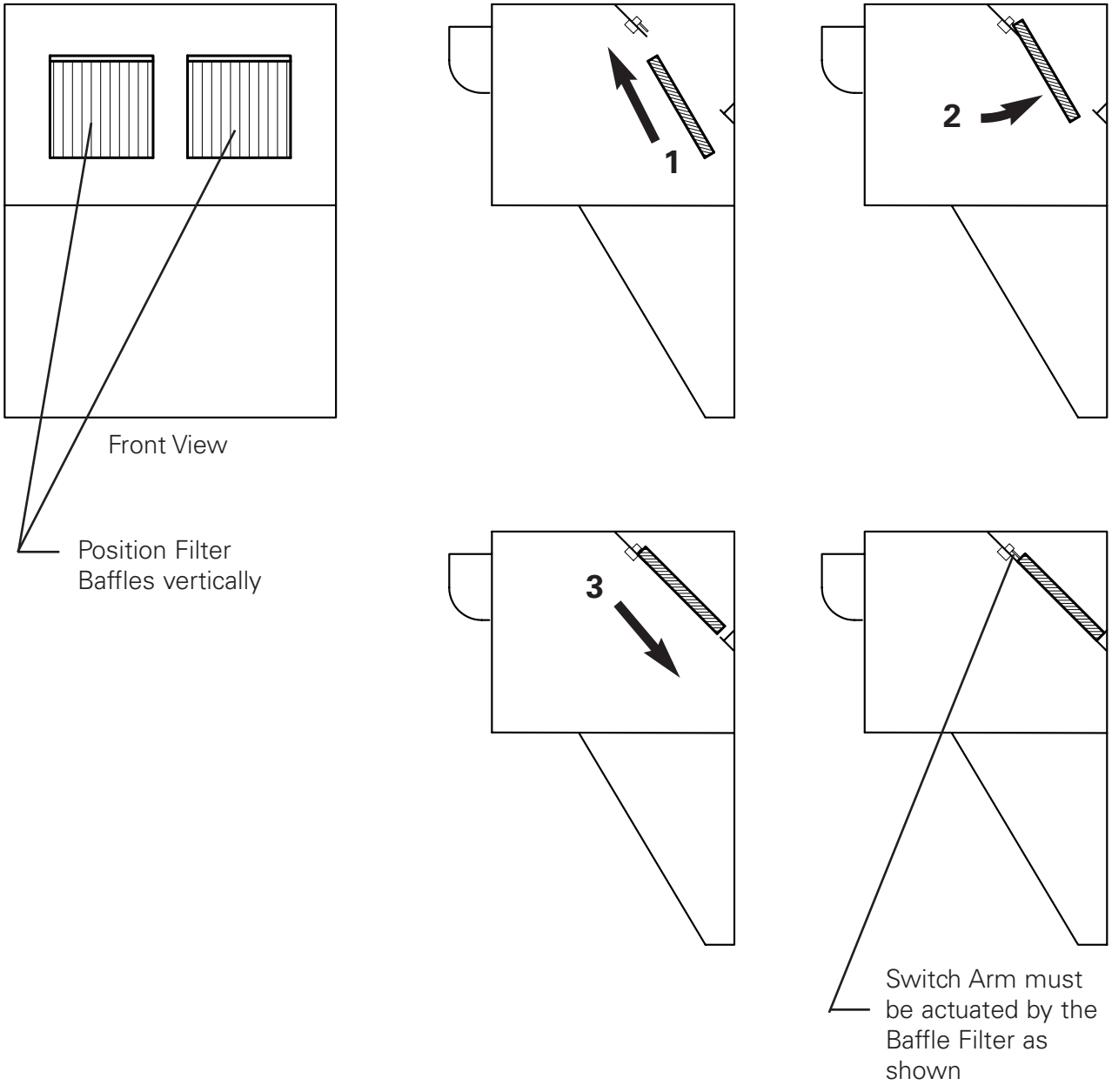






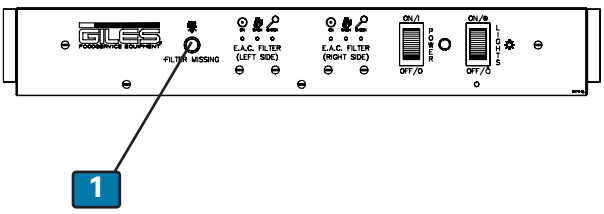


4-02.03. Baffle Filter Installation



4-02.04. Baffle Filter Missing

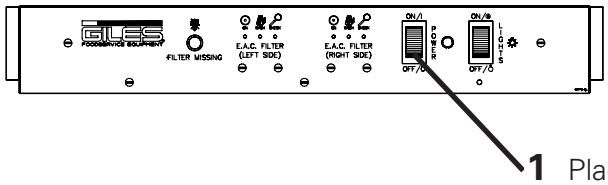
If the Baffle Filter is missing or not in place correctly the Filter Missing Light 1 will illuminate. See Section 4-2.03 Baffle Filter Installation.



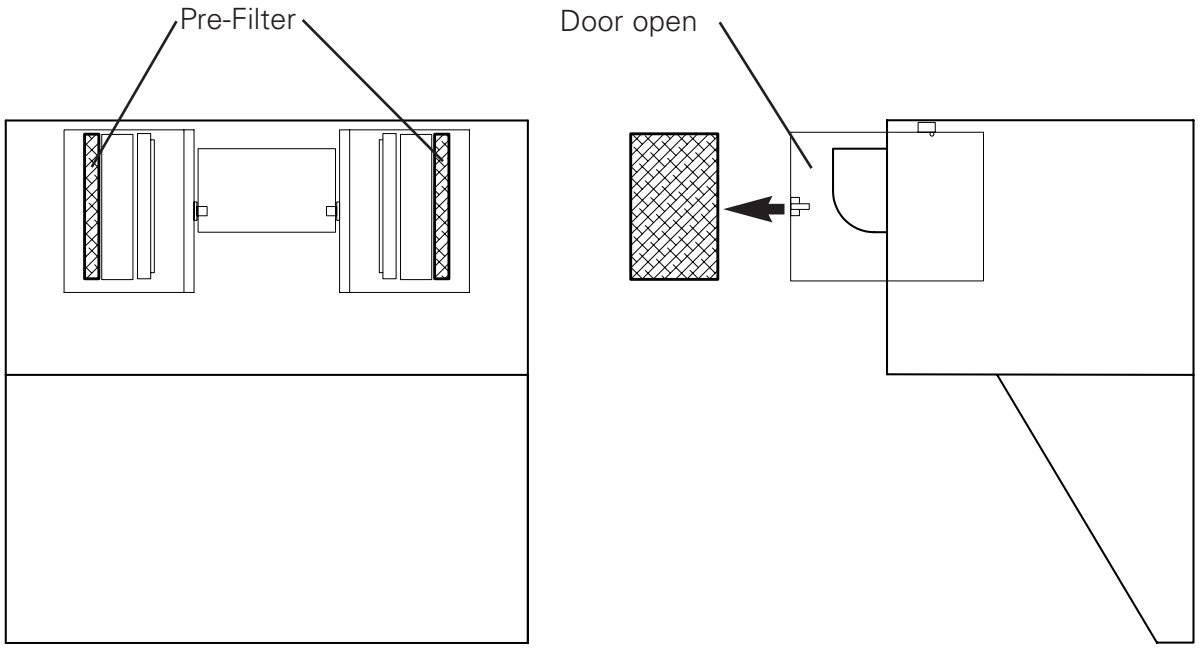
4-02.05. Baffle Filter Cleaning

The Baffle Filter should be cleaned daily. Place the Baffle Filter in a sink and clean with a mild biodegradable degreaser. Dry thoroughly, then reinstall in the unit.

4-02.06. Pre-Filter Removal

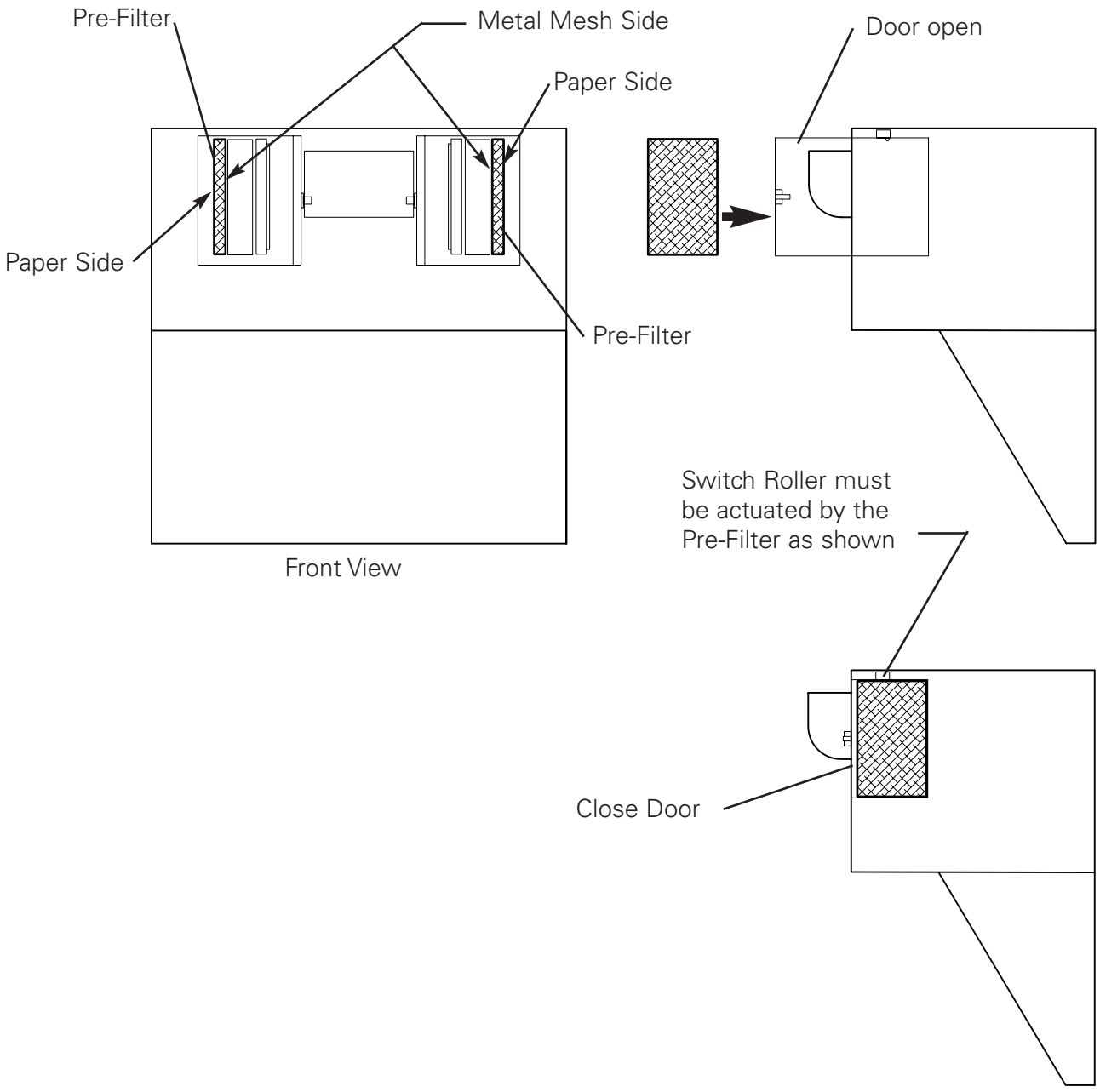


1 Place in OFF position



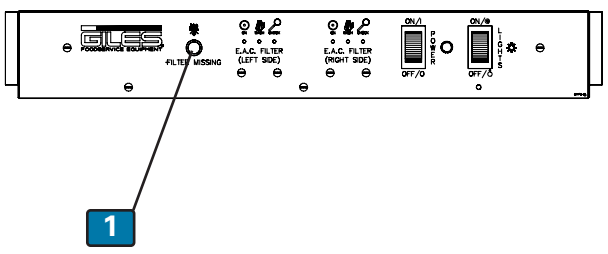
Front View

4-02.07. Pre-Filter Installation



4-02.08. Pre-Filter Filter Missing

If the Pre-Filter is missing or not in place correctly and the unit is on, the Filter Missing Light 1 will illuminate. See Section 4-02.07 Pre-Filter Installation.



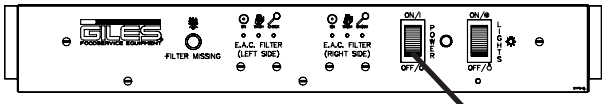
4-02.09. Pre-Filter Replacement

WARNING

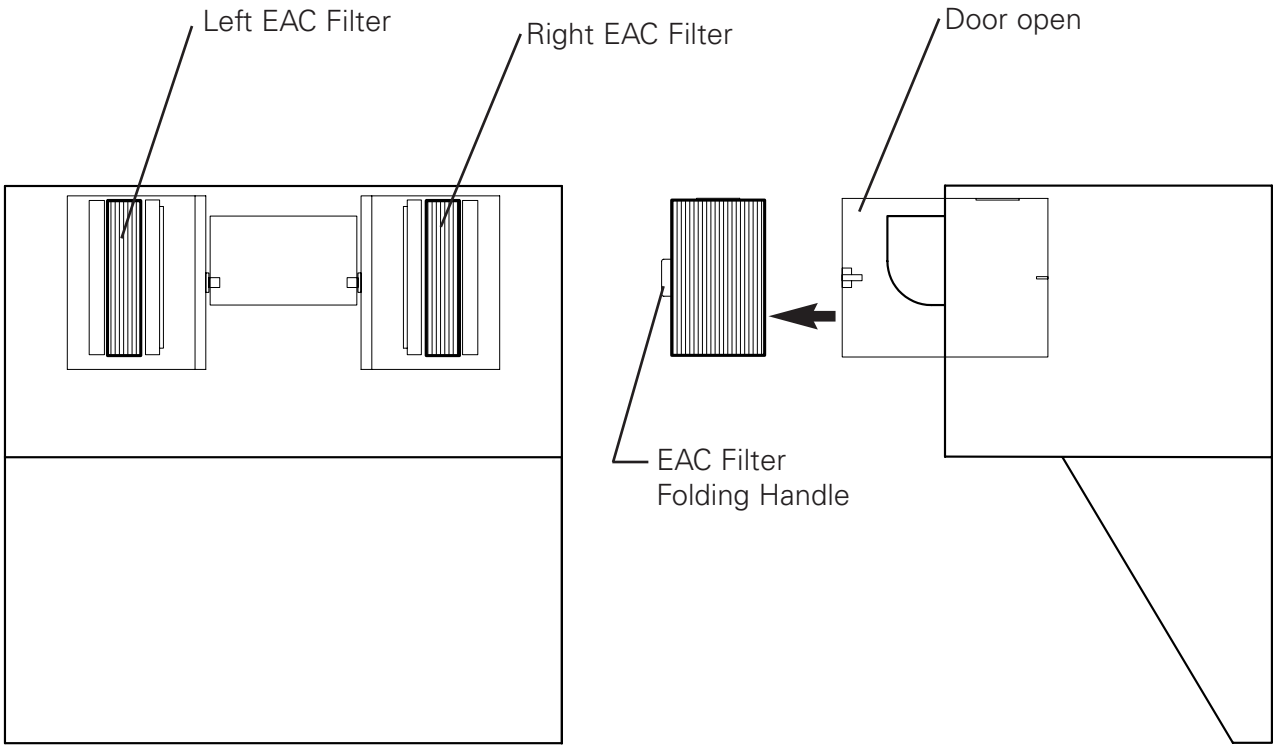
- **NEVER attempt to clean the Pre-Filter. This could cause damage to the unit.**

Replace the Pre-Filter weekly. Use Replacement Part No. 46762.

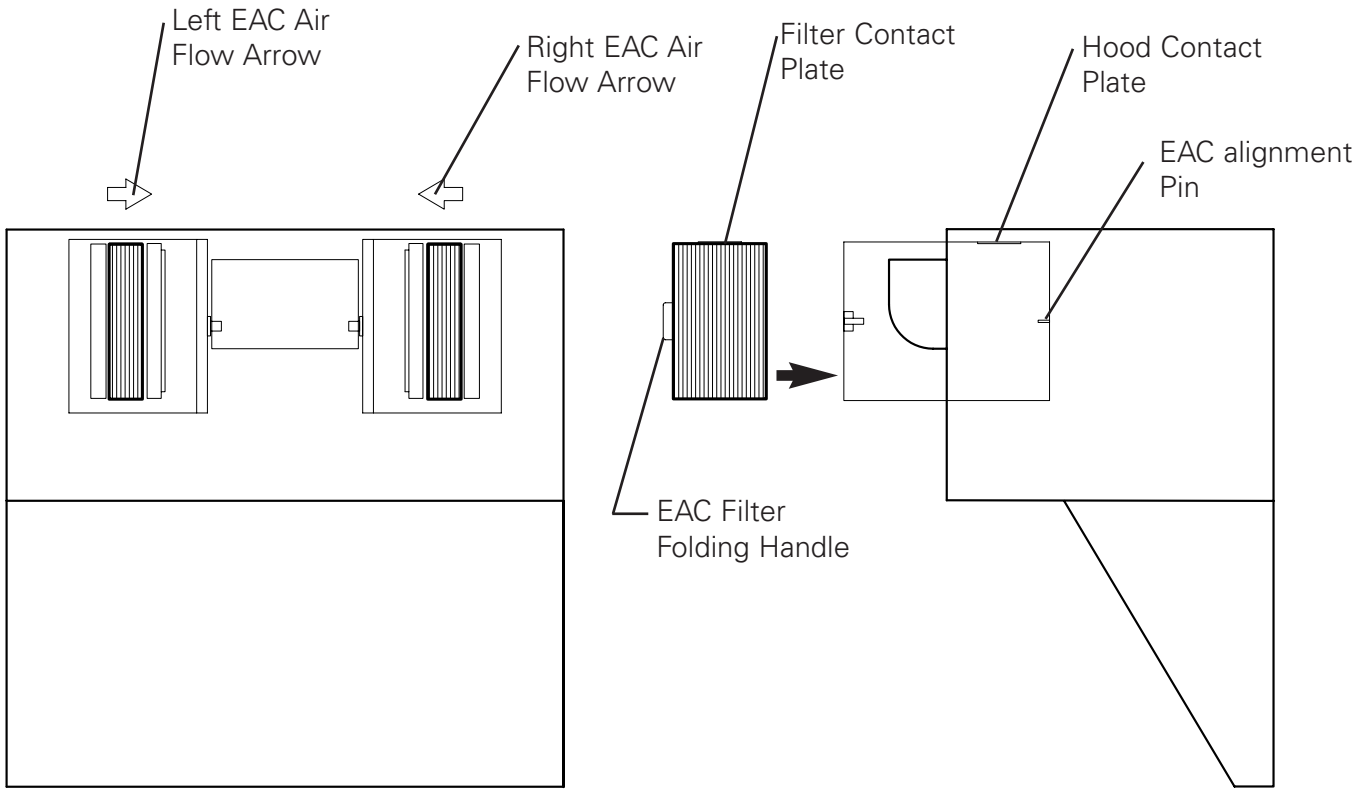
4-02.10. EAC Filter Removal

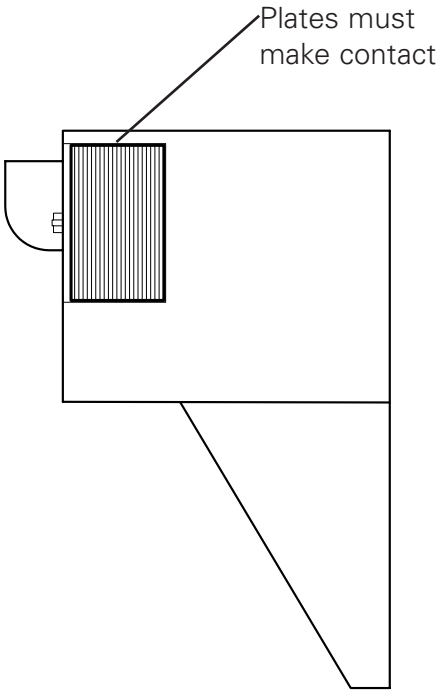


1 Place in OFF position



4-02.11. EAC Filter Installation





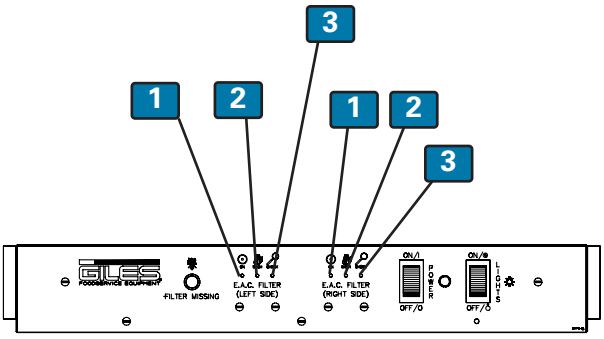
4-02.12. EAC Filter Status

The three indicator lights on the Control Panel display the status of the EAC Filter.

1 ON The EAC Filter is in place and powered.

2 WASH The EAC Filter is becoming excessively dirty and must be cleaned. If this light is on for more then 2 minutes an intermittent alarm will sound, (if the hood is interlocked with the Appliance below the Hood, then the Appliance Elements will turn off).

3 CHECK The EAC Filter is not operating. Either the filter is not getting a proper electrical connection or it is damaged. If this light is on for more then 2 minutes an intermittent alarm will sound, (if the hood is interlocked with the Appliance below the Hood, then the Appliance Elements will turn off).



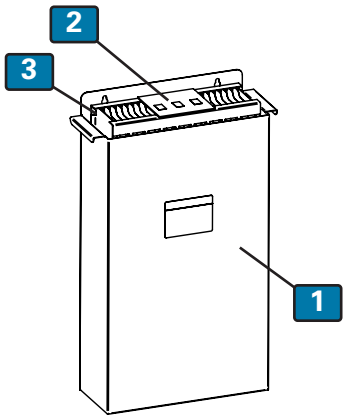
4-02.13. EAC Filter Cleaning

The EAC Filter should be cleaned daily.

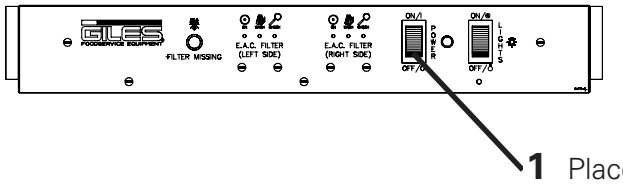
⚠ CAUTION

- **Do not bend the fins or break the ionizer wires on the EAC as this will prevent the EAC from working properly and potentially void the warranty.**

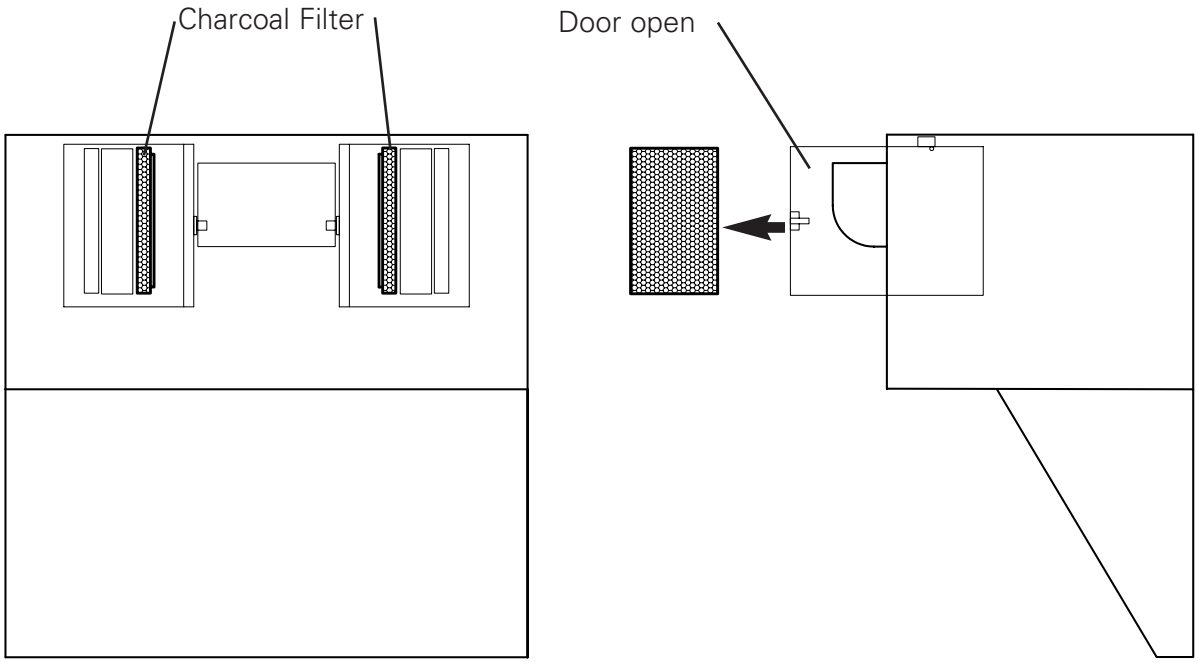
1. Mix a mild degreaser, such as Simple Green or Clean Magic, with 6.5 gallons of water in the included Soak Tank **1**.
2. Holding the contact plate **2** on the EAC **3** slowly lower the filter into the Soak Tank.
3. After allowing the EAC to soak for 20 to 30 minutes, using the contact plate **2**, lift the EAC up and down approximately 1" to 2" to help remove the grease residue.
4. Slowly remove the EAC from the tank and rinse clean in a sink using hot water.
5. Allow the EAC to air dry, thoroughly.



4-02.14. Charcoal Filter Removal

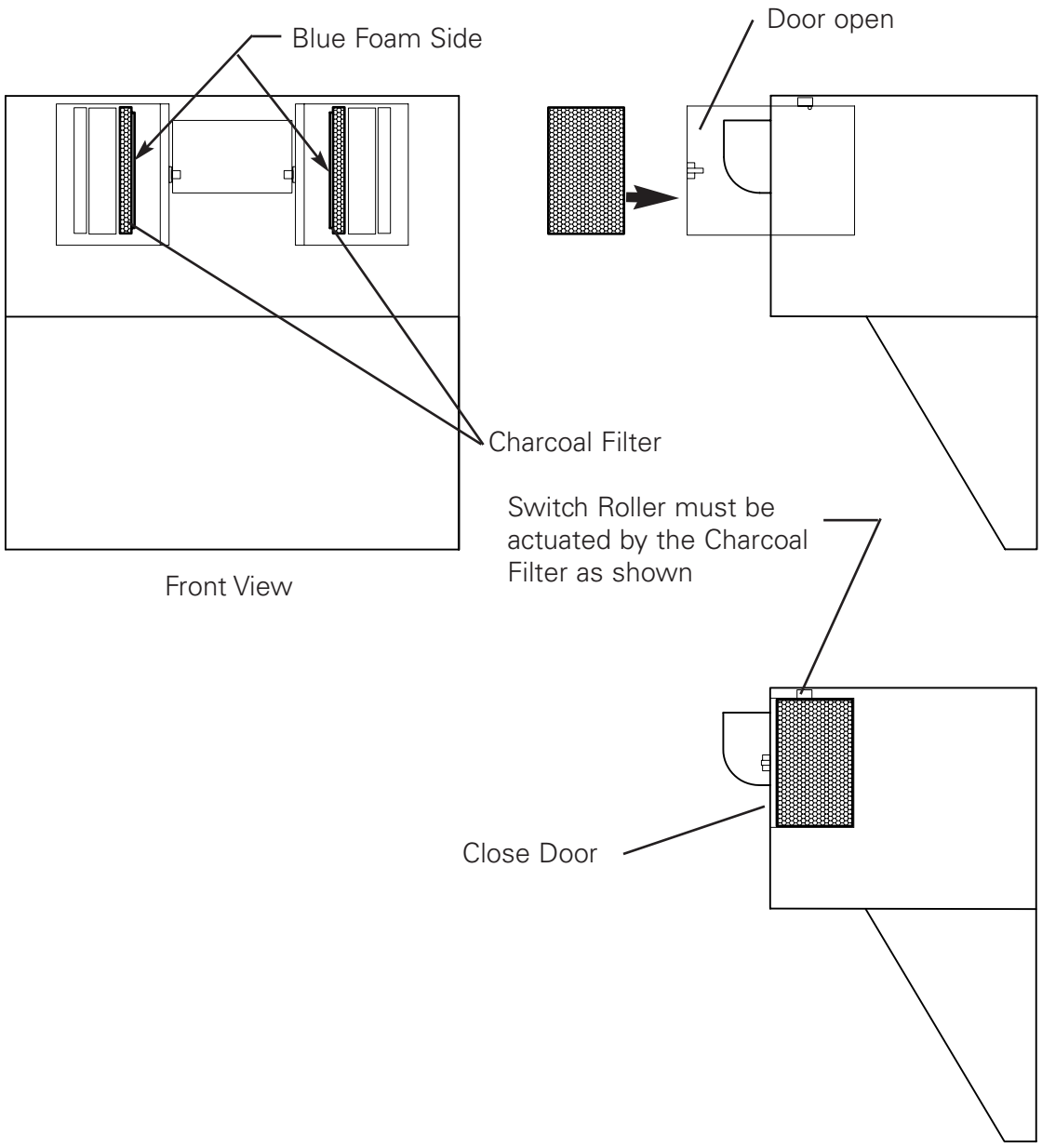


1 Place in OFF position



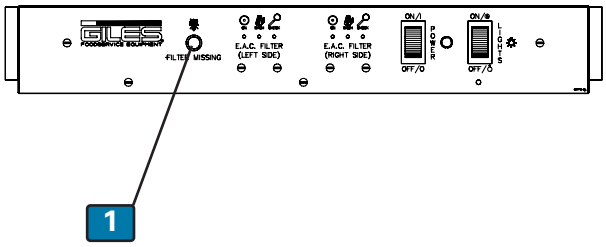
Front View

4-02.15. Charcoal Filter Installation



4-02.16. Charcoal Filter Missing

If the Charcoal Filter is missing or not in place correctly and the unit is on, the Filter Missing Light 1 will illuminate. See Section 4-2.15 Charcoal Filter Installation.



4-02.17. Charcoal Filter Replacement

⚠ WARNING

- **NEVER attempt to clean and reuse the Charcoal Filter. This could cause damage to the unit.**

Replace the Charcoal Filter every 30 days. Use Replacement Part No. 32056

4-03. Filter Alarm Chart

Alarm Sound	What will happen	Filter effected	Cause	Solution	See Section
Continuous beep	Alarm will sound and the power to the appliance will shut off. (If ILS, the power to the appliance and hood with shut off)	Charcoal	Filter dirty	Replace Filter	4-02.15. and 4-02.17.
Continuous beep	Alarm will sound and the power to the appliance will shut off. (If ILS, the power to the appliance and hood with shut off)	Pre-Filter	Filter dirty	Replace Filter	4-02.07. and 4-02.09.
Continuous beep	Alarm will sound and the power to the appliance will shut off. (If ILS, the power to the appliance and hood with shut off)	Baffle	Filter dirty	Clean Filter	4-02.03. and 4–02.05
Intermittent beeping	Alarm will sound for 2 minutes then power to the appliance will shut off. (If ILS, the power to the appliance and hood with shut off)	E.A.C.	Filter dirty	Clean Filter	4-02.11. and 4–02.13

Notes:

5. Hood Cleaning and Maintenance

This Section describes how to clean and maintain the Ventless Hood System so as to maintain its efficiency over time.

A **Maintenance and Service Log** is provided in this manual, see Table 7-3.6.

5-1. Monthly Interlock Check

Your Giles Ventless Hood System incorporates an Interlock System to ensure the unit is operated in a safe and effective manner. Testing of the Interlock System should be conducted MONTHLY in the following manner. Place a check in the box that corresponds to the test being performed. If a problem is found call your service representative.

1. **Baffle Filter Check**-With the Power Switch in the "OFF" position, remove the left Baffle Filter. Place the Power Switch in the "ON" position. Check appliance power, there should be none. Turn the Power Switch to the "OFF" position and reinstall the grease baffle into the hood. Follow the same check for the right Baffle Filter.
2. **Pre-Filter Check**-With the Power Switch in the "OFF" position, remove the left Pre-Filter. Place the Power Switch in the "ON" position. Check appliance power, there should be none. Return all switches to their "OFF" position. Reinstall the Pre-Filter. Follow the same check for the right Pre-Filter.
3. **EAC Filter Check**-With the Power Switch in the "OFF" position, remove the left EAC Filter. Place the Power Switch in the "ON" position, wait two minutes. Check appliance power, there should be none. Reinstall the EAC. Follow the same check for the right EAC Filter.
4. **Charcoal Filter Check**-With the Power Switch in the "OFF" position, remove the Charcoal Filter. Place the Power Switch in the "ON" position. Check appliance power, there should be none. Return all switches to their "OFF" position. Reinstall the charcoal filter. Follow the same check for the right Charcoal Filter.
5. **Filter Clogged Check**-Place the Power Switch in the "ON" position. Place a piece of paper or cardboard over both the Grease Baffle Filters. A buzzer should sound in approximately two minutes. Check appliance power, there should be none. Return all switches to their "OFF" position. Remove the test paper.

5-2. Quarterly Hood Cleaning

Remove power from the unit. Remove all Filters from the hood. Using soft cloth, sponge or towel and a mild biodegradable degreaser, clean the entire Hood Plenum and Blower Section. The hood must be cleaned every 3 months.

5-3. Semi-Annual Fire Suppression System Service

Service of the fire suppression system is to be conducted by qualified fire equipment personnel. As a minimum, field inspection of the Fire Suppression System is to be accomplished semi-annually by qualified fire equipment service personnel. Such maintenance shall consist of the following **(Consult the Giles Enterprises Design Installation, Recharge and Maintenance Manual for complete servicing guidelines).**

Place fire extinguishing system locking bar on fire system when servicing hood.

1. Remove charging cartridge, inspect gasket for cuts and elasticity, coat gasket with extreme temperature grease and reinstall.
2. Remove tank, verify chemical is at proper level, clean and coat O-ring with extreme temperature grease and reinstall. See Section 2-09. Fire Extinguisher Nozzle and Tank Locations
3. Check all nozzles to insure they are free of cooking grease buildup. See Section 2-06.4. Fire Extinguisher Nozzle Locations.
4. Test the remote manual pull station for activation and wear.
5. Install test link and cut to simulate automatic actuation.
6. Clean and inspect fusible links.See Section 2-06.2. Fire Suppression Fusible Links.
7. Inspect wire rope for wear at pulleys and detectors and replace if necessary.
8. Record maintenance date and maintain in a permanent file.

5-4. Annual Fire Suppression System

Same as Semi-Annual but all fusible links must be replaced with new fusible links. See Section 2-06-2. Fire Suppression Fusible Links.

5-5. 12 Year Fire Suppression System

Same as Annual except for the following.

1. Replace R-102 fire suppression chemical.
2. Hydrostatically test the tank and cartridge.
3. Flow test the regulator.

5-6. Maintenance & Service Log

Check								Initial/Date	Check								Initial/Date
✓1	✓2	✓3	✓4	✓5				*ABC 1/2/03*	1	2	3	4	5				
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5	6				1	2	3	4	5	6			
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5	6	7*	8*		1	2	3	4	5	6	7*	8*	
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5	6				1	2	3	4	5	6			
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5	6	7*	8*		1	2	3	4	5	6	7*	8*	
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5	6				1	2	3	4	5	6			
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5	6	7*	8*		1	2	3	4	5	6	7*	8*	
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5	6				1	2	3	4	5	6			
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5	6	7*	8*		1	2	3	4	5	6	7*	8*	
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5	6				1	2	3	4	5	6			
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5	6	7*	8*		1	2	3	4	5	6	7*	8*	
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5	6				1	2	3	4	5	6			
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5					1	2	3	4	5				
1	2	3	4	5	6	7*	8*		1	2	3	4	5	6	7*	8*	

1	Baffle Filter Check	Section 5-1.
2	Pre-Filter Check	Section 5-1.
3	EAC Filter Check	Section 5-1.
4	Charcoal Filter Check	Section 5-1.
5	Filter Clogged	Section 5-1.
6	Quarterly Cleaning	Section 5-2.
7*	Fire Suppression System	Section 5-3.
8*	Fire Suppression System replace Fusible Links	Section 5-4.

* Inspection must be performed by a qualified fire equipment company.

Notes:

6. Troubleshooting

This section describes troubleshooting procedures for the FSH-5 & FSH-6. Refer to the wiring diagrams in Section 8 for more detailed analysis.

⚠ DANGER

- Electrical troubleshooting procedures should be done ONLY by qualified service personnel. Death or serious injury will result from contact with energized electrical components.
- Failure to comply with these **DANGER** notices will result in death or serious injury, equipment/property damage, and void the warranty.

6-1. Troubleshooting Procedures

Problem	Probable Cause	Repair Procedure
Hood will not turn on	a. (ILS Only) "HOLD START" button not held for 5 seconds	a. Hold down "HOLD START"
	b. Power switch bad	b. Replace power switch.
	c. Improper supply voltage	c. Connect to proper voltage source.
	d. Hood cover not closed	d. Close hood cover.
	e. Not connected to power source	e. Connect to proper power source.
	f. Bad fuse or circuit breaker	f. Check the fuse or breaker.
Filter Missing Light on • Initial Start-up Only	a. Baffle filter is not installed	a. Install Baffle filter.
	b. Charcoal filter is not installed	b. Install charcoal filter.
Check or Wash Light on	a. EAC shorted	a. Replace or repair EAC.
	b. EAC dirty	b. Clean EAC.
	c. High voltage power supply faulty.	c. Replace high voltage power supply
	d. High voltage wires shorted.	d. Correct shorted condition.
	e. Bad contact plate	e. Replace contact plate.

6-1. Troubleshooting Procedures (Cont'd.)

Problem	Probable Cause	Repair Procedure
Appliance will not heat • Hood power on • Filter missing light on	a. Baffle Filter missing	a. Install Baffle Filter
	b. Baffle Filter not installed properly	b. Reinstall Baffle Filter
	c. Charcoal Filter missing	c. Install Charcoal Filter
Appliance will not heat • Hood power on • Filter missing light off • Buzzer emitting a continuous tone	a. Charcoal Filter clogged	a. Replace Charcoal Filter
	b. Baffle Filter clogged	b. Clean Baffle Filter
	c. Clogged filter switch out of adjustment	c. Adjust clogged switch only. (initial start-up switch bad)
	d. Kinked vacuum line	d. Remove vacuum line kinks
	e. Fan running slow	e. Check voltage
Appliance will not heat • Hood power on • Buzzer emitting a pulsating tone	a. EAC shorted	a. Repair EAC
	b. EAC dirty	b. Clean EAC
	c. EAC power supply faulty	c. Replace EAC power supply
	d. EAC wires shorted	d. Check voltage
	e. Bad contact plate	e. Replace contact plate
	f. EAC module faulty	f. Replace EAC module
	g. EAC ionizer wire broken or missing	g. Replace ionizer wire

7. Parts List

This section lists various parts that are available for replacement on the FSH-5 and FSH-6.

7–1. Parts Ordering and Service Information

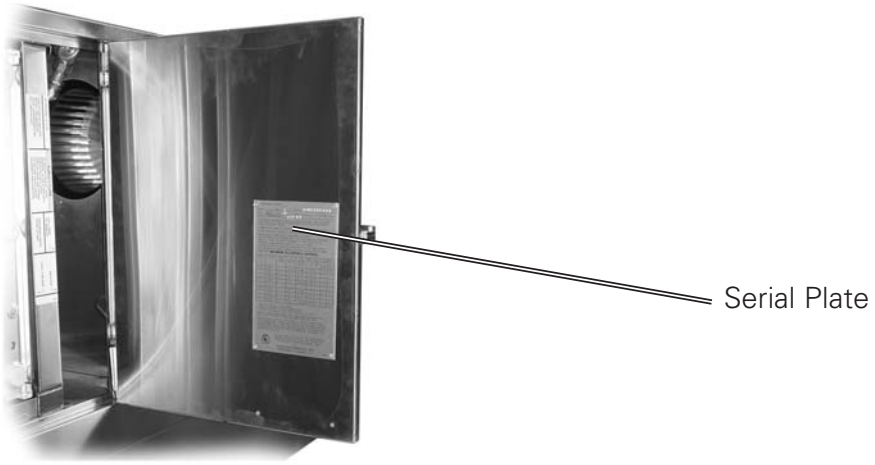
If you require assistance or need repairs, please contact your area developer for a service agency in your area. For further assistance, please contact the Giles Enterprises, Inc. factory at the following phone numbers:

IN THE UNITED STATES, CANADA or MEXICO
Please call 1-800-288-1555 during normal business hours, 8:00AM-5:00PM Central Time Zone; other than normal business hours, please call 1-800-288-1555, extension 314.

IN ALL OTHER COUNTRIES
Please call 1-334-272-3528 during normal business hours, 8:00AM-5:00PM Central Time Zone; other than normal business hours, please call 1-334-272-3528 extension 314.

INTERNET
Please visit our website on the world wide web at: www.gilesent.com.

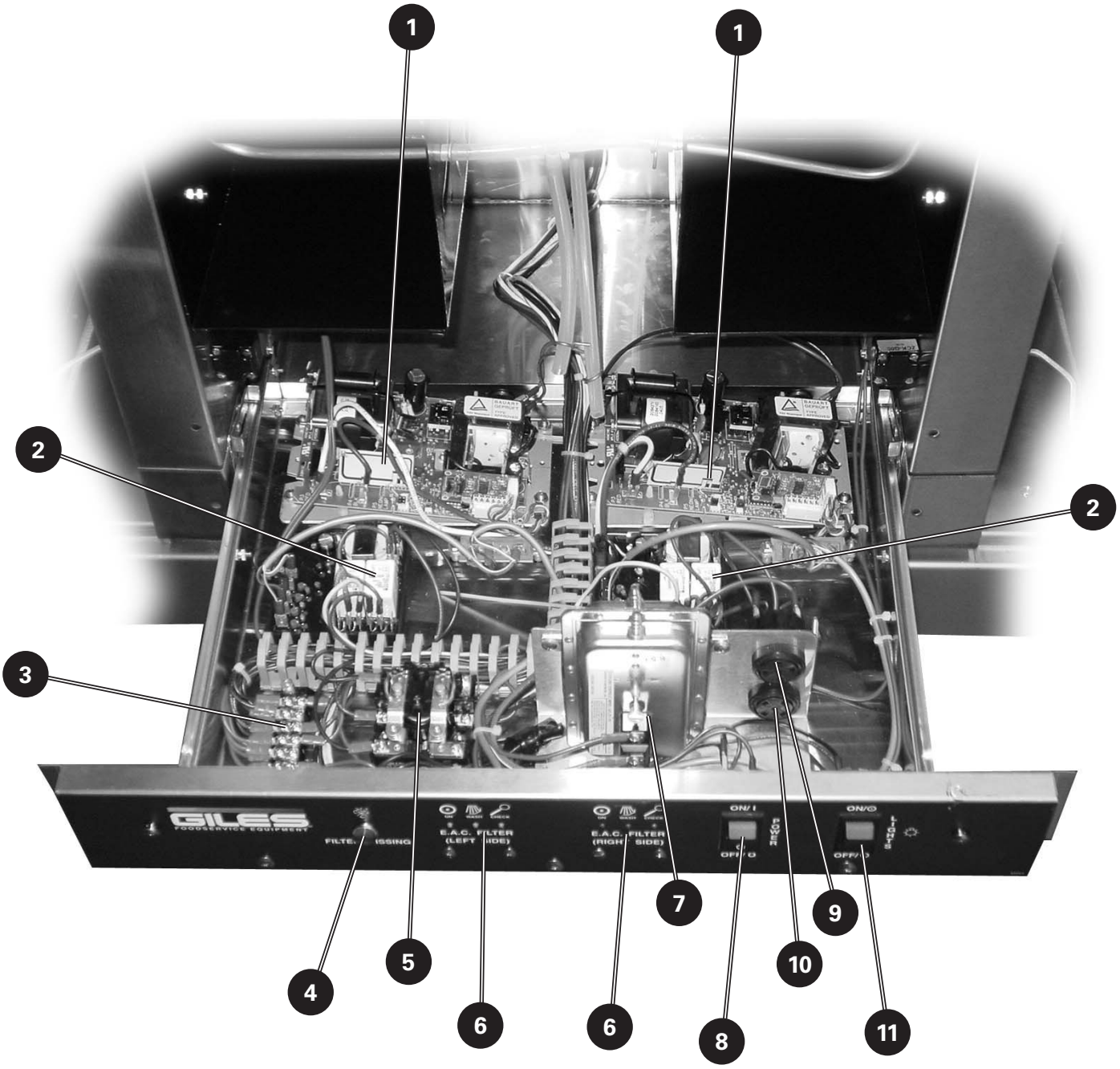
The goal of the Giles team of professionals is to provide you with the highest quality of service and assistance. You can help us accomplish this by obtaining the following information and having it readily available when calling. The information is recorded on the Serial Plate attached to the inside of the door of the unit.



The area below may be helpful in recording information for use as a quick reference.

Model Name: _____
Serial Number: _____
Phase: _____
Voltage: _____
Nature of Problem: _____

7-2. Component Drawer -FSH-5 and FSH-6



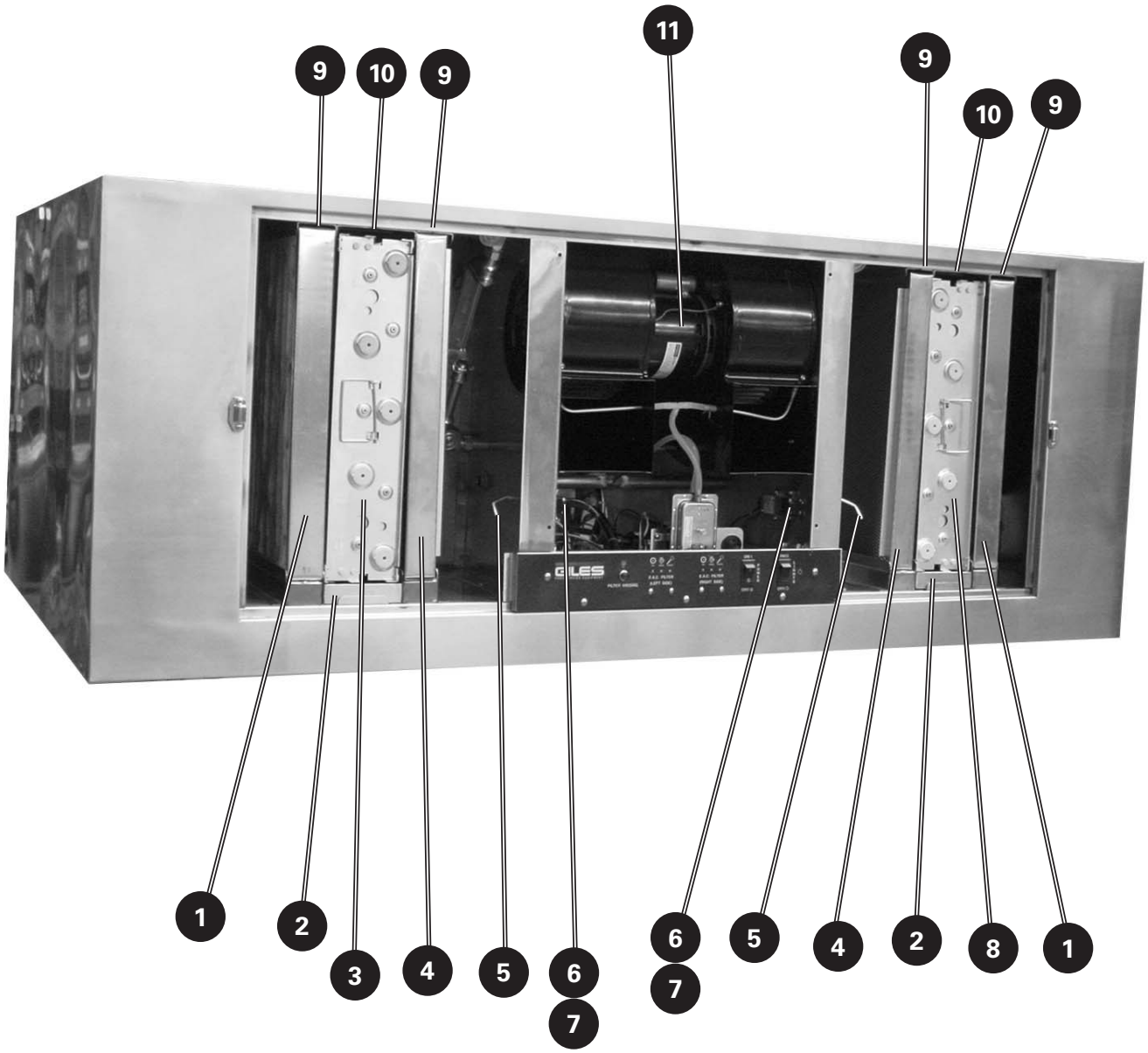
* -Not shown

7-2. Parts List for Component Drawer -FSH-5 and FSH-6

Item	Part No.	Qty.	Description
1	24208	2	POWER SUPPLY, W/DRIVER BRD, 208-240V,EAC
2	23776	2	MODULE, AIR FILTER, ALARM AND SHUTDOWN
3	23751	1	TERMINAL BLOCK, MA106,6 POLE
4	22300	1	LIGHT, PILOT, 250V, ROUND, RED
5	21174	1	RELAY, 30A, 240V, 2 POLE
5	21191	1	RELAY, 30A, 208V, 2 POLE
6	24209	2	LED, AIR FILTER, EAC
7	23001	1	SWITCH, VACUUM, HOSE BARB
8	21190	1	SWITCH, ROCKER, ON-OFF, 250V, 20A, DPST
9	23782	1	SONALERT, 250V, CONTINUOUS BEEP
10	22950	1	SONALERT, 250V, INTERMITTENT
11	21052	1	SWITCH,ROCKER,ON-NONE-ON,250V,20A,DPDT

* -Not shown

7-3. Front View -Doors and Panel removed



* -Not shown

7-3. Parts List for Front View -Doors and Panel removed

Item	Part No.	Qty.	Description
1	46762	2	FILTER, PRE-FILTER, 12 X 20 X 2, FSH-5
2	31843	2	PAN, E.A.C. FILTER
3	20521	1	FILTER, EAC 12 X 20, LEFT SIDE ONLY
4	32056	2	CHARCOAL FILTER, ASSY, FSH-5
5	21185	2	SWITCH, BAFFLE FILTER LEVER
6	21183	2	SWITCH, BODY ONLY, 240V, 30A,
7	21184	2	SWITCH, HEAD ONLY
8	20520	1	FILTER, EAC, 20 IN RIGHT-SIDE ONLY
9	23200	4	SWITCH, SNAP ACTION, ROLLER TYPE
10	21125	2	BOARD, CONTACT, EAC, VH UNITS
11	34616	1	BLOWER, ASSY, DUAL

* -Not shown

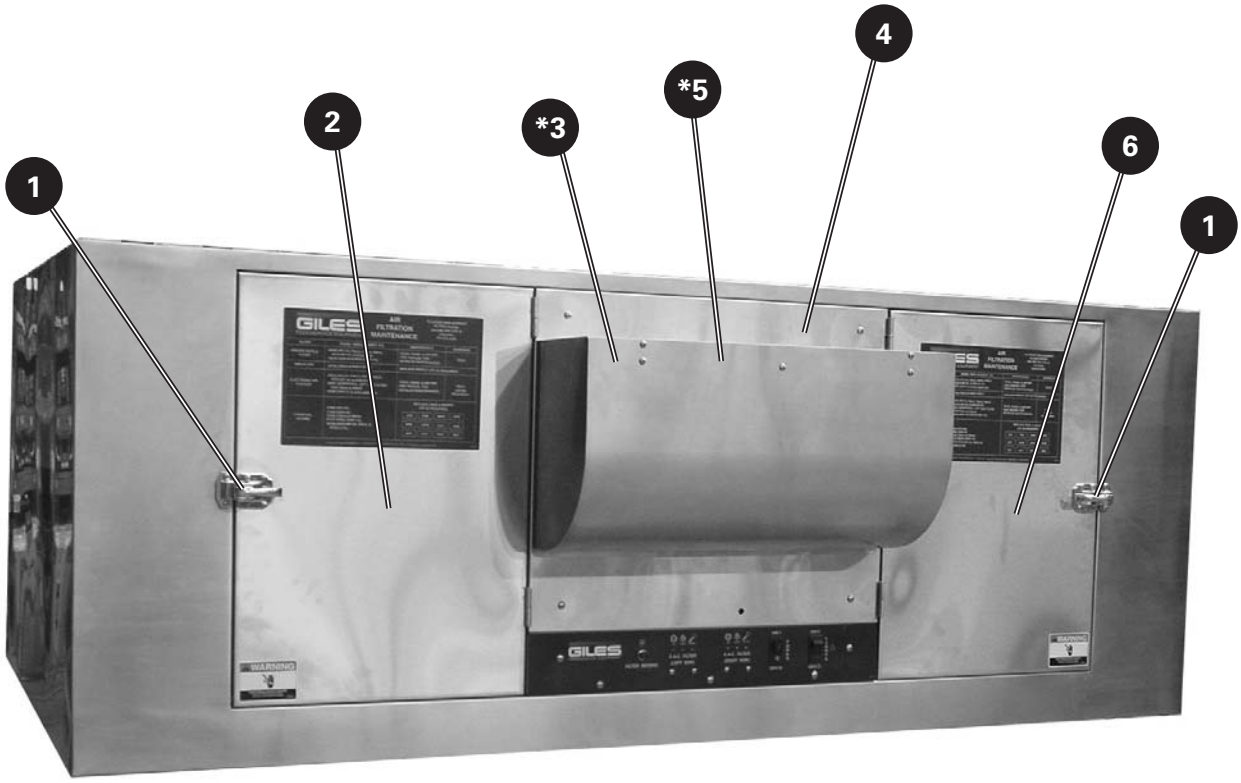
7-4. Baffle Filters and Switches

+ -ILS Only
* -Not shown

7-4. Parts List for Baffle Filters and Switches

Item	Part No.	Qty.	Description
1	42300	2	FILTER, BAFFLE S/S 20 X 20
2	32776	1	DRIP CUP, WELD ASSY
3	21185	2	SWITCH, BAFFLE FILTER LEVER
4	21183	2	SWITCH, BODY ONLY, 240V, 30A, BAFFLE FIL
5	21184	2	SWITCH, HEAD ONLY

7-5. Doors and Front Panel



* -Not shown

7-5. Parts List for Doors and Front Panel

Item	Part No.	Qty.	Description
1	42827	2	LATCH, DOOR -FSH-5 (GRIDDLE)
2	33637	1	FILTER DOOR, WELD ASSY, LEFT
*3	46126	1	DAMPER, (FSH-5) FIRE
4	34453	1	WELD ASSY.,FAN COVER (STAGE 2)
*5	43058	1	SCREEN, DAMPER
6	33253	1	FILTER DOOR, WELD ASSY, RIGHT

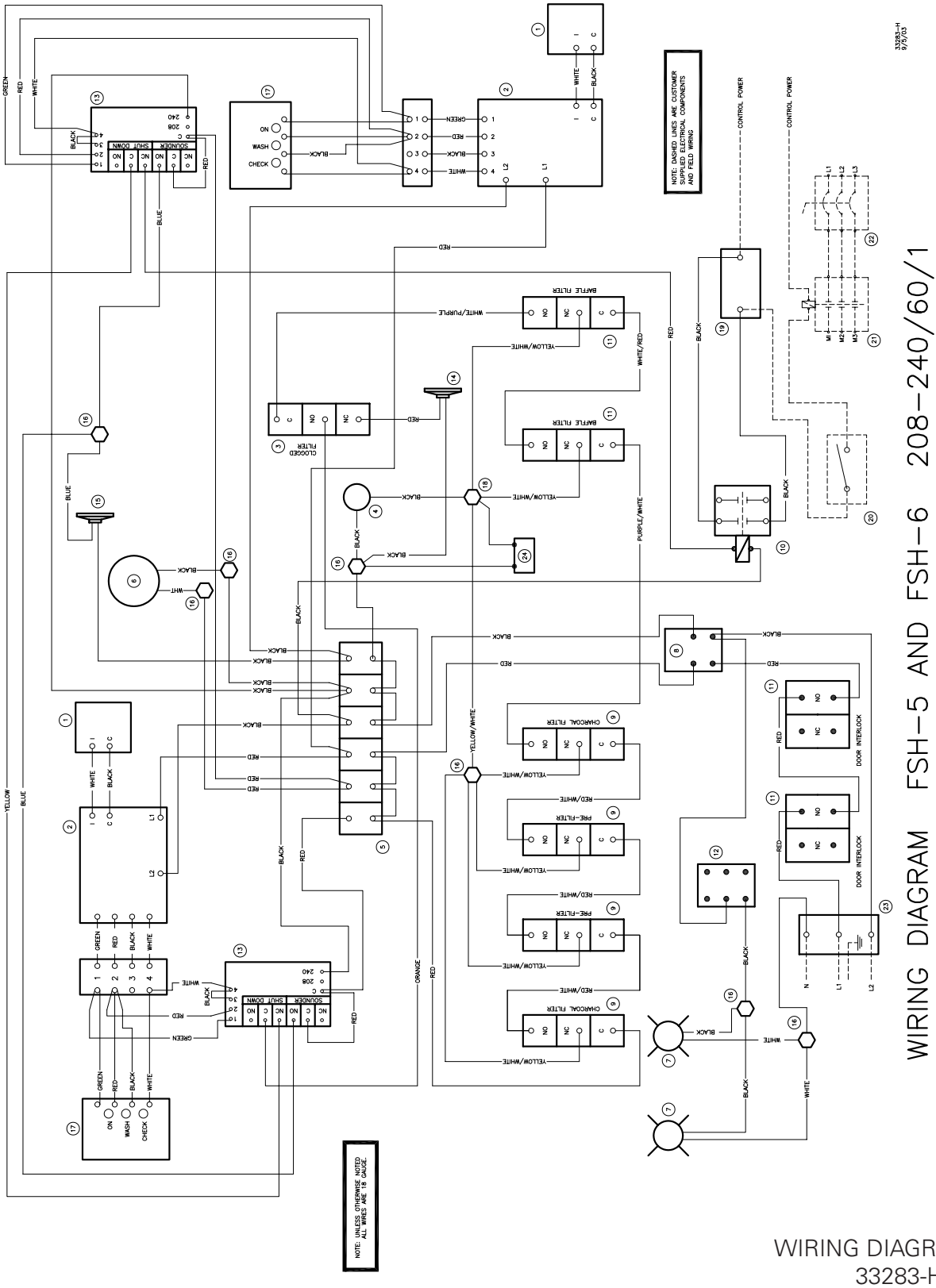
* -Not shown

Notes:

8. Wiring Diagram

The following section contains various Wiring Diagrams for the FSH-5 and FSH-6. Please check the Serial Plate, as shown below, for the units Model Name, Voltage, Hertz, and Phase.

8-01. Wiring Diagram FSH-5 and FSH-6 208-240/60/1

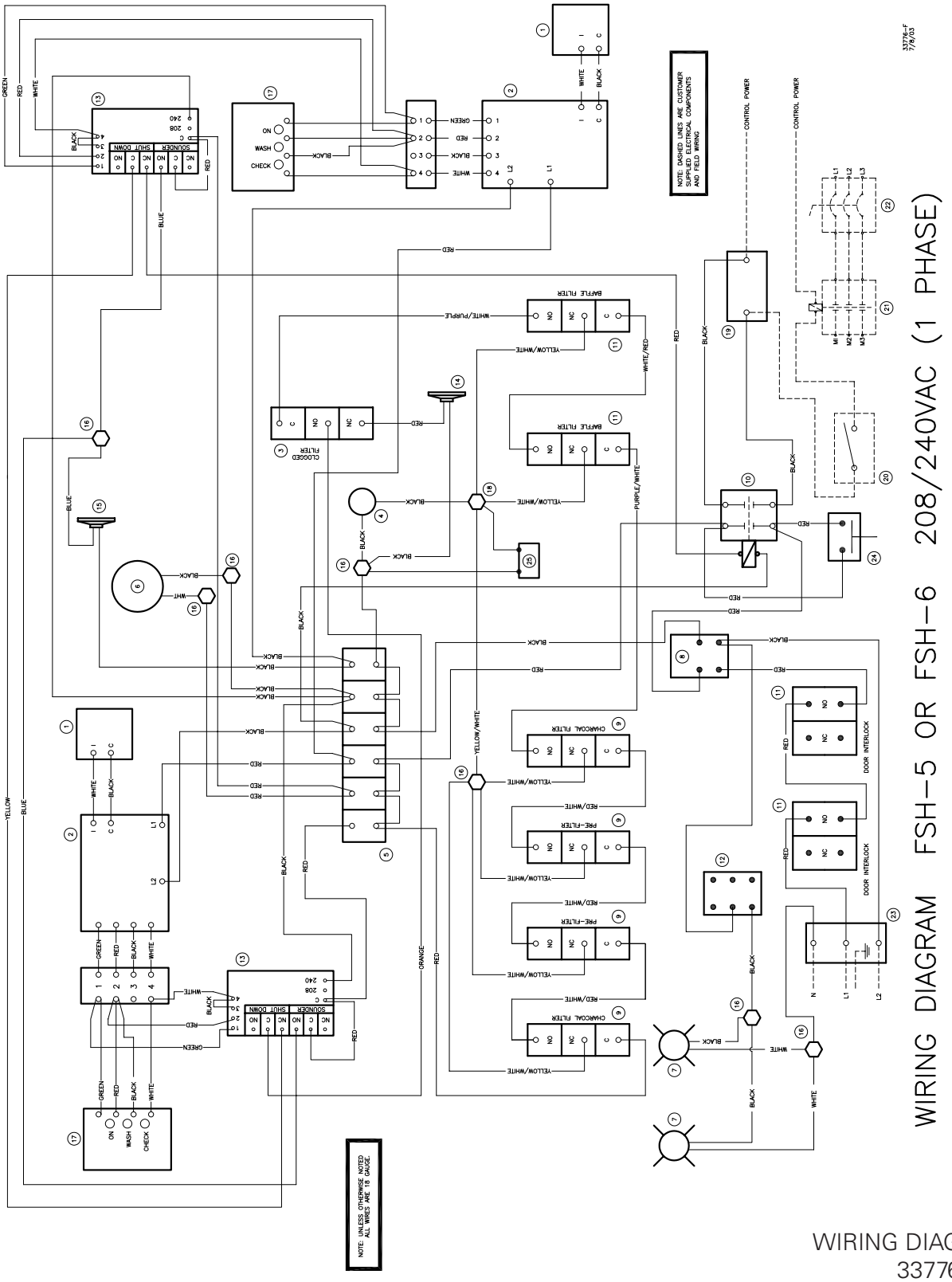

WIRING DIAGRAM FSH-5 AND FSH-6 208-240/60/1
NOTE: UNLESS OTHERWISE NOTED ALL WIRES ARE 18 GAUGE.
NOTE: DASHED LINES ARE CUSTOMER SUPPLIED ELECTRICAL COMPONENTS AND FIELD WIRING
CONTROL POWER
CONTROL POWER
33283-H 9/04

WIRING DIAGRAM P/N: 33283-H

8-01. Parts List for Wiring Diagram FSH-5 and FSH-6 208-240/60/1

Item	Part No.	Qty.	Description
01	21125	2	BOARD, CONTACT, EAC, VH UNITS
02	24208	2	POWER SUPPLY, W/DRIVER BRD, 208-240V,EAC
03	23001	1	SWITCH, VACUUM, HOSE BARB
04	22300	1	LIGHT, PILOT, 250V, ROUND, RED
05	23751	1	TERMINAL BLOCK, MA106,6 POLE
06	21805	1	BLOWER, DUAL, 230V, FSH-5
07	45095	2	BULB, LIGHT, 100 WATT,120V,STANDARD BASE
08	21190	1	SWITCH, ROCKER, ON-OFF, 250V, 20A, DPST
09	23200	4	SWITCH, SNAP ACTION, ROLLER TYPE
10	21174	1	RELAY, 30A, 240V, 2 POLE
10	21191	1	RELAY, 30A, 208V, 2 POLE
11	21183	4	SWITCH, BODY ONLY, 240V, 30A, BAFFLE FIL (SWITCH HEAD P/N 21184)
12	21052	1	SWITCH,ROCKER,ON-NONE-ON,250V,20A,DPDT
13	23776	2	MODULE, AIR FILTER, ALARM AND SHUTDOWN
14	23782	1	SONALERT, 250V, CONTINUOUS BEEP
15	22950	1	SONALERT, 250V, INTERMITTENT
16	25275	7	WIRENUT, IDEAL BLUE
17	24209	2	LED, AIR FILTER, EAC
18	25325	1	WIRENUT, IDEAL YELLOW
19	20700	1	CONDUIT SERVICE BOX, 1/2"
20	-----	1	
21	-----	1	
22	-----	1	
23	33203	1	SERVICE BOX, 1/2" w/0.840 HOLE, FSH-5
24	20500	1	CAPACITOR, QUENCHARC, 250V, 120 OHMS

8-02. Wiring Diagram FSH-5 and FSH-6 208-240/60/1 (ILS)



WIRING DIAGRAM P/N:
33776-F

8-02. Parts List for Wiring Diagram FSH-5 and FSH-6 208-240/60/1 (ILS)

Item	Part No.	Qty.	Description
01	21175	2	CONTACTOR, 50AMP,2 POLE, 208/240V
02	24208	2	POWER SUPPLY, W/DRIVER BRD, 208-240V,EAC
03	23001	1	SWITCH, VACUUM, HOSE BARB
04	22300	1	LIGHT, PILOT, 250V, ROUND, RED
05	23751	1	TERMINAL BLOCK, MA106,6 POLE
06	21805	1	BLOWER, DUAL, 230V, FSH-5
07	45095	2	BULB, LIGHT, 100 WATT,120V,STANDARD BASE
08	21190	1	SWITCH, ROCKER, ON-OFF, 250V, 20A, DPST
09	23200	4	SWITCH, SNAP ACTION, ROLLER TYPE
10	21174	1	RELAY, 30A, 240V, 2 POLE
10	21191	1	RELAY, 30A, 208V, 2 POLE
11	21183	4	SWITCH, BODY ONLY, 240V, 30A, BAFFLE FIL (SWITCH HEAD P/N 21184)
12	21052	1	SWITCH,ROCKER,ON-NONE-ON,250V,20A,DPDT
13	23776	2	MODULE, AIR FILTER, ALARM AND SHUTDOWN
14	23782	1	SONALERT, 250V, CONTINUOUS BEEP
15	22950	1	SONALERT, 250V, INTERMITTENT
16	25275	7	WIRENUT, IDEAL BLUE
17	24209	2	LED, AIR FILTER, EAC
18	25325	1	WIRENUT, IDEAL YELLOW
19	20700	1	CONDUIT SERVICE BOX, 1/2"
20	-----	1	SWITCH, FIRE EXTINGUISHER (SUPPLIED BY ANSUL)
21	-----	1	CONTACTOR (SUPPLIED BY CUSTOMER)
22	-----	1	LOAD CENTER CIRCUIT BREAKER (SUPPLIED BY CUSTOMER)
23	33203	1	SERVICE BOX, 1/2" w/0.840 HOLE, FSH-5
24	23173	1	SWITCH,PUSHBUTTON,N.O.,MOM,PLUNGER
25	20500	1	CAPACITOR, QUENCHARC, 250V, 120 OHMS

Notes:

Giles Enterprises, Inc.
2750 Gunter Park Drive West • Montgomery, Al 36109 USA
Phone (334) 272-1457 • **Service Hotline 1-800-554-4537 (USA & Canada Only)** • FAX (334) 272-3561 • www.gilesent.com

Form No. 64898 (Release date: 07/99)(Revision Date: 06/10/04)(Rev B)(ECO0839)(CSY)